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MMM         MMM  000         000  UUU         UUU  NNN      NNNNNN        TTT
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MMM         MMM     000000000     UUUUUUUUUUUUUUU  NNN         NNN        TTT
MMM         MMM     000000000     UUUUUUUUUUUUUUU  NNN         NNN        TTT
MMM         MMM     000000000     UUUUUUUUUUUUUUU  NNN         NNN        TTT
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FILEID**MOUDK2

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MM      MM    000000    UU      UU  DDDDDDDD    KK      KK    222222
MM      MM    000000    UU      UU  DDDDDDDD    KK      KK    222222
MMMM  MMMM  00      00  UU      UU  DD      DD  KK      KK  22      22
MMMM  MMMM  00      00  UU      UU  DD      DD  KK      KK  22      22
MM  MM  MM  00      00  UU      UU  DD      DD  KK    KK            22
MM  MM  MM  00      00  UU      UU  DD      DD  KK    KK            22
MM      MM  00      00  UU      UU  DD      DD  KKKKKK            22
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MM      MM  00      00  UU      UU  DD      DD  KK    KK        22
MM      MM  00      00  UU      UU  DD      DD  KK    KK        22
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MM      MM    000000    UUUUUUUUUU  DDDDDDDD    KK      KK  2222222222      ....

LL            IIIIII      SSSSSSSS
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LLLLLLLLLL    IIIIII    SSSSSSSS
LLLLLLLLLL    IIIIII    SSSSSSSS
```

```
0 MODULE MOUDK2 (
0                 LANGUAGE (BLISS32),
0                 IDENT = 'V04-002'
0                 ) =
1 BEGIN
1
1 !
1 !****************************************************************************
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1 !*                                                                          *
1 !****************************************************************************
1
1 !++
1 !
1 ! FACILITY:  MOUNT Utility Structure Level 2
1 !
1 ! ABSTRACT:
1 !
1 !       This routine performs all of the mechanics of mounting a disk,
1 !       given as input the parsed and partially validated command line.
1 !
1 ! ENVIRONMENT:
1 !
1 !       STARLET operating system, including privileged system services
1 !       and internal exec routines.
1 !
1 !--
1 !
1 !
1 ! AUTHOR:  Andrew C. Goldstein,  CREATION DATE:  17-Oct-1977  17:41
1 !
1 ! MODIFIED BY:
1 !
1 !       V04-002 HH0057          Hai Huang               12-Sep-1984
1 !               Clear DEV$V_MNT bit along with UCB$L_VCB on error
1 !               path.
1 !
1 !       V04-001 HH0056          Hai Huang               11-Sep-1984
1 !               Return SS$_VOLINV status when appropriate to facilitate
```

```
1 !                     retry on volume invalid errors.
1 !
1 !     V03-030 CDS0011         Christian D. Saether    29-Aug-1984
1 !             Only set up QUO_CACHE for RVN 1.  Ignore quodirty
1 !             flag for other than RVN 1.
1 !
1 !     V03-029 HH0045          Hai Huang               10-Aug-1984
1 !             Take out the volume lock for shared foreign mounts.
1 !
1 !     V03-028 ACG0438         Andrew C. Goldstein,    25-Jul-1984  11:48
1 !             Initialize cache flusher ACB's in the VCA
1 !
1 !     V03-027 HH0041          Hai Huang               24-Jul-1984
1 !             Remove REQUIRE 'LIBD$:[VMSLIB.OBJ]MOUNTMSG.B32'.
1 !
1 !     V03-026 HH0039          Hai Huang               20-Jul-1984
1 !             Return SS$_NOHOMEBLK if index file header checks fail.
1 !
1 !     V03-025 LMP0275         L. Mark Pilant,         12-Jul-1984  21:38
1 !             Initialize the ACL info in the ORB to be a null descriptor
1 !             list rather than an empty queue.  This avoids the overhead
1 !             of locking and unlocking the ACL mutex, only to find out
1 !             that the ACL was empty.
1 !
1 !     V03-024 CDS0010         Christian D. Saether    12-Jul-1984
1 !             Clean up handling of quodirty flag and rebuilding
1 !             decisions thereof.  Don't output REBLDREQD informational
1 !             until after the volume is mounted.
1 !
1 !     V03-023 CDS0009         Christian D. Saether    11-Jul-1984
1 !             Don't call check_cluster_sanity until after we've
1 !             determined whether disk is write-locked.
1 !             Don't rundown locks in cleanup handler until
1 !             after scb has been rewritten.
1 !             Revive use of SCB$L_STATUS and SCB$L_STATUS2 flags.
1 !
1 !     V03-022 HH0031          Hai Huang               03-Jul-1984
1 !             Set up FCB$L_LOCKBASIS correctly when creating a volume
1 !             set.
1 !
1 !     V03-021 HH0029          Hai Huang               29-Jun-1984
1 !             Ouput informational message about reduced cache when
1 !             appropriate.
1 !
1 !     V03-020 CDS0008         Christian D. Saether    17-May-1984
1 !             Remove reference to VC_NOALLOC.  That flag is no
1 !             longer used by the file system.
1 !
1 !     V03-019 CDS0007         Christian D. Saether    26-Apr-1984
1 !             Bump FCB$W_REFCNT for index file fcb.
1 !
1 !     V03-018 LMP0221         L. Mark Pilant,         28-Mar-1984  9:57
1 !             Change UCB$L_OWNUIC to ORB$L_OWNER and UCB$W_VPROT to
1 !             ORB$W_PROT.
1 !
1 !     V03-017 ROW0326         Ralph O. Weber          20-MAR-1984
1 !             Add setup of VCB$Q_MOUNTTIME for later testing by mount
```

```
1 !                     verification.
1 !
1 !             V03-016 HH0004          Hai Huang               11-Mar-1984
1 !                     Fix truncation errors introduced by cluster-wide
1 !                     mount support.
1 !
1 !             V03-015 ACG0400         Andrew C. Goldstein,    10-Mar-1984  1:29
1 !                     Turn quota cache back on
1 !
1 !             V03-014 HH0002          Hai Huang               01-Feb-1984
1 !                     Add job-wide mount support, i.e. always deallocate
1 !                     mount list entries to paged-pool in condition handler.
1 !
1 !             V03-013 CDS0006         Christian D. Saether    18-Oct-1983
1 !                     Move STORE_CONTEXT call to before quota file activation.
1 !
1 !             V03-012 CDS0005         Christian D. Saether     1-Sep-1983
1 !                     Only make duplicate volume set name test for first
1 !                     volume mounted.  Clear UCB pointer in RVT in kernel
1 !                     mode handler on error paths.
1 !
1 !             V03-011 CDS0004         Christian D. Saether    30-Aug-1983
1 !                     Use different local for rvt ucb scan.
1 !
1 !             V03-010 CDS0003         Christian D. Saether     3-Aug-1983
1 !                     Cluster consistency checks added.
1 !                     Remove the earlier crude mount serialization now
1 !                     that MOUNT_VOLUME does it based on device.
1 !                     Delay increment of device refcount in UCB so that
1 !                     it will not be left incorrectly biased on certain
1 !                     error paths.
1 !
1 !             V03-009 CDS0002         Christian D. Saether     3-Aug-1983
1 !                     Remove reference to RVT$L_RVX (obsolete).
1 !
1 !             V03-008 TCM0001         Trudy C. Matthews       21-Jun-1983
1 !                     Increment device refcount in UCB on mount.
1 !
1 !             V03-007 DMW4044         DMWalp                   7-Jun-1983
1 !                     Remove (S)LOG_ENTRY
1 !
1 !             V03-006 STJ3095         Steven T. Jeffreys,     28-Apr-1983
1 !                     Propagate ERASE and NOHIGHWATER throughout the volume set.
1 !
1 !             V03-005 STJ50311        Steven T. Jeffreys,     11-Feb-1983
1 !                     Make all uses of PHYS_NAME indexed by DEVICE_INDEX.
1 !
1 !             V03-004 CDS0001         Christian D. Saether     6-Jan-1983
1 !                     Make test for xqp here and take out mount interlock lock
1 !                     for duration of MOUNT_DISK2 if using xqp.
1 !                     Temporarily disable write back caching and quota caching
1 !                     when running with xqp, as well as rebuild until mount
1 !                     can figure out if other mounters are present.
1 !
1 !             V03-003 LMP0036         L. Mark Pilant,          6-Aug-1982  15:30
1 !                     Add support for ACL's.
1 !
```

```
1 !       V03-002 STJ0301         Steven T. Jeffreys,     18-May-1982
1 !               Add support for /NOUNLOAD qualifier.
1 !
1 !       V03-001 STJ0243         Steven T. Jeffreys,     03-Apr-1982
1 !               - Use common I/O routines.
1 !               - Remove code that sets device allocation access mode.
1 !                 The device will be manually deallocated in VMOUNT.
1 !               - Ensure that we back out a 'dirty' SCB in case the
1 !                 specified ACP cannot be found.
1 !
1 !       V02-020 STJ0193         Steven T. Jeffreys,     02-Feb-1982
1 !               Rearrange storage so that different modules can share
1 !               the statically allocated buffers.
1 !
1 !       V02-019 STJ0179         Steven T. Jeffreys,     07-Jan-1982
1 !               Add support for the VCB$V_MOUNTVER bit.
1 !
1 !       V02-018 ACG0246         Andrew C. Goldstein,    4-Jan-1982  14:27
1 !               Add /OVER:LOCK support, add NOCACHE bit to VCB;
1 !               Remove primary exception handler code.
1 !
1 !       V02-017 ACG0230         Andrew C. Goldstein,    29-Dec-1981  19:21
1 !               Add file expiration support
1 !
1 !       V02-016 ACG0234         Andrew C. Goldstein,    4-Dec-1981  17:03
1 !               Limit index file EOF to allocated space
1 !
1 !       V02-015 STJ0045         Steven T. Jeffreys,     31-May-1981
1 !               Initialize a BLISS local variable to prevent a KERNEL mode
1 !               access violation in MAKE_DISK_MOUNT for /FOREIGN mounts.
1 !
1 !       V02-014 STJ0040         Steven T. Jeffreys,     21-May-1981
1 !               Copy volume serial number from homeblock to VCB.
1 !
1 !       V02-013 ACG35282        Andrew C. Goldstein,    23-Jan-1981  14:13
1 !               Clean up SCB after ACP startup failure
1 !
1 !       V02-012 ACG0169         Andrew C. Goldstein,    18-Apr-1980  13:48
1 !               Bug check on internal errors
1 !
1 !       V02-011 ACG0167         Andrew C. Goldstein,    18-Apr-1980  13:38
1 !               Previous revision history moved to MOUNT.REV
1 !**
1
1 LIBRARY 'SYS$LIBRARY:LIB.L32';
1 REQUIRE 'SRC$:MOUDEF.B32';
1
1
1 FORWARD ROUTINE
1         MOUNT_DISK2     : NOVALUE,      ! main disk mounting routine
1         MOUNT_HANDLER,                  ! condition handler for main mount code
1         MAKE_DISK_MOUNT,                ! kernel mode mount routine
1         SET_DATACHECK   : NOVALUE,      ! set volume data check attributes
1         KERNEL_HANDLER  : NOVALUE;      ! kernel mode condition handler
```

```
1 !+
1 !
1 ! Own storage for this module.
1 !
1 !-
1
1 LITERAL
1         WINDOW_SIZE     = 30*6;         ! maximum index file window size
1
1 GLOBAL
1         !
1         ! Declare a one block buffer to be used by MOUDK1, MOUDK2, and BINDVL.
1         ! Previously, each module declared the buffer as OWN storage.  Since
1         ! the buffer is always written to before it is used, there is no need
1         ! to zero it before hand.
1         !
1         BUFFER          : BBLOCK [512],         ! buffer for disk blocks
1         !
1         ! Likewise, MOUDK1 and MOUDK2 make use of PROTO_VCB, PROTO_FCB,
1         ! PROTO_WCB and VOLUME_UIC.  In addition, MOUTAP also uses PROTO_VCB.
1         ! Each module is responsible for zeroing the blocks before using them.
1         !
1         PROTO_VCB       : BBLOCK [VCB$C_LENGTH], ! prototype VCB
1         PROTO_FCB       : BBLOCK [FCB$C_LENGTH], ! prototype index file FCB
1         PROTO_WCB       : BBLOCK [WCB$C_LENGTH+WINDOW_SIZE],
1                                                 ! prototype index file window
1         VOLUME_UIC      : LONG,                 ! owner UIC of volume
1         CACHE_STATUS;                           ! status of block cache allocation
1
1
1 OWN
1         IO_STATUS       : VECTOR [4, WORD];     ! I/O status block.
```

```
GLOBAL ROUTINE MOUNT_DISK2 : NOVALUE =

!++
!
! FUNCTIONAL DESCRIPTION:
!
!       This routine performs all of the mechanics of mounting a structure
!       level 2 disk, given as input the parsed and partially validated
!       command line.
!
!
! CALLING SEQUENCE:
!       MOUNT_DISK ()
!
! INPUT PARAMETERS:
!       NONE
!
! IMPLICIT INPUTS:
!       MOUNT parser data base
!       CHANNEL: channel number for I/O
!       HOME_BLOCK: buffer containing volume home block
!       HOMEBLOCK_LBN: LBN of home block
!
! OUTPUT PARAMETERS:
!       NONE
!
! IMPLICIT OUTPUTS:
!       NONE
!
! ROUTINE VALUE:
!       NONE
!
! SIDE EFFECTS:
!       volume mounted: VCB, etc., created, ACP started
!
!--

BEGIN

BUILTIN
        ROT,
        FFS,
        FFC,
        TESTBITSC;

LINKAGE
        L_MAP_POINTER   = JSB :
                        GLOBAL (COUNT = 6, LBN = 7, MAP_POINTER = 8);

LABEL
        IDX_SCAN;                       ! index file bitmap scan loop

GLOBAL REGISTER
        COUNT           = 6,            ! number of blocks in storage map
        LBN             = 7,            ! current LBN in use
        MAP_POINTER     = 8 : REF BBLOCK; ! pointer to scan map pointers

```

```
;  317          0846  2 LOCAL
;  318          0847  2         PROCESS_UIC,                    ! UIC of this process
;  319          0848  2         PRIVILEGE_MASK  : REF BBLOCK,   ! address of process privilege mask
;  320          0849  2         P,                              ! random pointer
;  321          0850  2         C,                              ! string count
;  322          0851  2         STATUS          : BBLOCK [4],   ! utility status word
;  323          0852  2         IDX_EOF,                        ! end of file on index file
;  324          0853  2         FREE,                           ! number of free blocks on volume
;  325          0854  2         X,                              ! longword of bitmap
;  326          0855  2         B1,                             ! start point of bit scan
;  327          0856  2         B2;                             ! end point of bit scan
;  328          0857  2
;  329          0858  2 EXTERNAL
;  330          0859  2         DEV_CTX         : BBLOCK FIELD (DC), ! device lock value block context
;  331          0860  2         VOL_CTX         : BBLOCK FIELD (VC), ! volume lock value block context
;  332          0861  2         VOLOCK_COUNT,                   ! count of volume locks
;  333          0862  2         STORED_CONTEXT  : BITVECTOR,    ! XQP flag is used
;  334          0863  2         MOUNT_OPTIONS   : BITVECTOR,    ! command option flags
;  335          0864  2         CLEANUP_FLAGS   : BITVECTOR,    ! cleanup action flags
;  336          0865  2         DEVICE_CHAR     : BBLOCK,       ! device characteristics
;  337          0866  2         USER_STATUS,                    ! status return from some routines
;  338          0867  2         LABEL_STRING    : VECTOR,       ! volume label string in command
;  339          0868  2         DEVICE_INDEX    : VECTOR,       ! index into PHYS_NAME vector
;  340          0869  2         PHYS_NAME       : VECTOR,       ! descriptor of physical device name
;  341          0870  2         STRUCT_NAME     : VECTOR,       ! descriptor of volume set name
;  342          0871  2         DRIVE_COUNT     : VECTOR,       ! number of drives per device
;  343          0872  2         WINDOW,                         ! command specified window size
;  344          0873  2         ACCESSED,                       ! command specified LRU limit
;  345          0874  2         EXTENSION,                      ! command specified default file extend
;  346          0875  2         EXT_CACHE,                      ! size of extent cache to allocate
;  347          0876  2         FID_CACHE,                      ! size of file ID cache to allocate
;  348          0877  2         QUO_CACHE,                      ! size of quota file cache to allocate
;  349          0878  2         EXT_LIMIT,                      ! limit of volume space to cache
;  350          0879  2         HOME_BLOCK      : BBLOCK,       ! buffer containing volume home block
;  351          0880  2         HOMEBLOCK_LBN,                  ! LBN of home block
;  352          0881  2         HEADER_LBN,                     ! LBN of current file header
;  353          0882  2         CURRENT_RVN,                    ! RVN of disk being mounted
;  354          0883  2         CURRENT_VCB     : REF BBLOCK,   ! address of VCB being built
;  355          0884  2         CTL$GL_PHD      : REF BBLOCK ADDRESSING_MODE (ABSOLUTE),
;  356          0885  2                                         ! vector page pointer to process header
;  357          0886  2         ACP$GW_EXTCACHE : WORD ADDRESSING_MODE (ABSOLUTE),
;  358          0887  2                                         ! default space for extent cache
;  359          0888  2         ACP$GW_FIDCACHE : WORD ADDRESSING_MODE (ABSOLUTE),
;  360          0889  2                                         ! default space for file ID cache
;  361          0890  2         ACP$GW_QUOCACHE : WORD ADDRESSING_MODE (ABSOLUTE),
;  362          0891  2                                         ! default space for quota file cache
;  363          0892  2         ACP$GW_EXTLIMIT : WORD ADDRESSING_MODE (ABSOLUTE),
;  364          0893  2                                         ! max space to keep in extent cache
;  365          0894  2         ACP$GB_WRITBACK : BYTE ADDRESSING_MODE (ABSOLUTE),
;  366          0895  2                                         ! ACP write-back cache enable flag
;  367          0896  2         ACP$GB_WINDOW   : BYTE ADDRESSING_MODE (ABSOLUTE),
;  368          0897  2                                         ! default window size for /SYSTEM
;  369          0898  2         ACP$GW_SYSACC   : WORD  ADDRESSING_MODE (ABSOLUTE);
;  370          0899  2                                         ! default LRU limit for /SYSTEM
;  371          0900  2
;  372          0901  2 EXTERNAL ROUTINE
;  373          0902  2         CHECK_CLUSTER_SANITY : NOVALUE, ! check cluster mount consistency
```

```
2           GET_VOLUME_LOCK,                    ! take out volume lock
2           GET_VOLUME_LOCK_NAME,               ! generate volume lock name
2           GET_UIC,                            ! get UIC of process
2           CHECK_HEADER2,                      ! verify file header
2           CHECKSUM,                           ! compute block checksum
2           READ_BLOCK,                         ! read a block from the disk
2           WRITE_BLOCK,                        ! write a block to the disk
2           INIT_FCB2,                          ! initialize FCB
2           TURN_WINDOW2,                       ! initialize window
2           LEFT_ONE,                           ! leftmost one bit of value
2           GET_MAP_POINTER : L_MAP_POINTER,    ! get value of file map pointer
2           BIND_VOLUME;                        ! update volume set list
2
2
2   ENABLE MOUNT_HANDLER;
2
2   CURRENT_VCB = PROTO_VCB;                    ! pointer used by CHECK_HEADER2
2   CH$FILL (0, VCB$C_LENGTH, PROTO_VCB);       ! init to zero
2   CACHE_STATUS = 1;                           ! init status of block cache allocation
2
2   ! For maximum safety, we do as much setup work in user mode as possible. We
2   ! read all of the disk blocks (index file and storage map headers and the
2   ! storage map) in user mode so that the program is abortable in case something
2   ! hangs. Prototype control blocks are built in local storage and are copied
2   ! into the system pool by the kernel mode routine.
2   ! Get the process UIC and the volume owner UIC. Make the privilege checks
2   ! for overriding volume protection and options requiring operator privilege.
2   !
2
2   PROCESS_UIC = KERNEL_CALL (GET_UIC);
2   PRIVILEGE_MASK = CTL$GL_PHD[PHD$Q_PRIVMSK];
2   VOLUME_UIC = 0;
2   IF .MOUNT_OPTIONS[OPT_IS_FILES11]
2   THEN VOLUME_UIC = .HOME_BLOCK[HM2$L_VOLOWNER];
2
3   IF  (
3       .MOUNT_OPTIONS[OPT_OVR_PRO]
4       AND NOT (.PRIVILEGE_MASK[PRV$V_VOLPRO]
4                   OR .VOLUME_UIC EQL 0
4                   OR .VOLUME_UIC EQL .PROCESS_UIC)
3       )
3
3   OR  (
4       (   .MOUNT_OPTIONS[OPT_WINDOW]
4       OR .MOUNT_OPTIONS[OPT_ACCESSED]
4       OR .MOUNT_OPTIONS[OPT_UNIQUEACP]
4       OR .MOUNT_OPTIONS[OPT_SAMEACP]
4       OR .MOUNT_OPTIONS[OPT_FILEACP]
4       OR .MOUNT_OPTIONS[OPT_CACHE]
4       )
3       AND NOT .PRIVILEGE_MASK[PRV$V_OPER]
3       )
3
3   OR  (
3       .MOUNT_OPTIONS[OPT_GROUP]
3       AND NOT .PRIVILEGE_MASK [PRV$V_GRPNAM]
3       )
```

```
3
3 OR  (
3     .MOUNT_OPTIONS[OPT_SYSTEM]
3     AND NOT .PRIVILEGE_MASK [PRV$V_SYSNAM]
3     )
3
2 THEN ERR_EXIT (SS$_NOPRIV);
2
2 IF .MOUNT_OPTIONS[OPT_FOREIGN]
2 THEN VOLUME_UIC = .PROCESS_UIC;
2
2 ! Unless the file= option was used to specify and acp for this
2 ! volume always use the xqp.
2 !
2
2 IF NOT .MOUNT_OPTIONS [OPT_FILEACP]
2 THEN
2     STORED_CONTEXT [XQP] = 1;
2
2 ! Establish the volume set name, if any. It comes from the /BIND switch,
2 ! or from the home block. If both, they must match.
2 !
2
2 IF .MOUNT_OPTIONS[OPT_BIND]
2 THEN
3     BEGIN
3     IF .HOME_BLOCK[HM2$W_RVN] NEQ 0
3     THEN
4         BEGIN
4         IF CH$NEQ (.STRUCT_NAME[0], .STRUCT_NAME[1],
4                 HM2$S_STRUCNAME, HOME_BLOCK[HM2$T_STRUCNAME], ' ')
4         THEN ERR_EXIT (MOUN$_VOLINSET);
4         END
4
3     ELSE
4         BEGIN
4         CH$COPY (.STRUCT_NAME[0], .STRUCT_NAME[1], ' ',
4                 HM2$S_STRUCNAME, HOME_BLOCK[HM2$T_STRUCNAME]);
4         MOUNT_OPTIONS[OPT_DO_BIND] = 1;
3         END;
3     END
3
2 ELSE
3     BEGIN
3     IF .HOME_BLOCK[HM2$W_RVN] NEQ 0
3     THEN
4         BEGIN
4         STRUCT_NAME[0] = HM2$S_STRUCNAME;
4         STRUCT_NAME[1] = HOME_BLOCK[HM2$T_STPUCNAME];
3         END;
2     END;
2
2 ! Default the cache parameters to the system defaults.
2 !
2
2 IF .EXT_CACHE EQL 0
2 THEN EXT_CACHE = .ACP$GW_EXTCACHE;
```

```
2 IF .MOUNT_OPTIONS[OPT_NOEXT_C]
2 THEN EXT_CACHE = 0;
2
2 IF .FID_CACHE EQL 0
2 THEN FID_CACHE = .ACP$GW_FIDCACHE;
2 IF .MOUNT_OPTIONS[OPT_NOFID_C]
2 OR .FID_CACHE EQL 0
2 THEN FID_CACHE = 1;
2
2 IF .QUO_CACHE EQL 0
2 THEN QUO_CACHE = .ACP$GW_QUOCACHE;
2 IF .MOUNT_OPTIONS[OPT_NOQUO_C]
2 THEN QUO_CACHE = 0;
2
2 IF .EXT_LIMIT EQL 0
2 THEN EXT_LIMIT = .ACP$GW_EXTLIMIT;
2
2 ! First fill in the prototype VCB from the data in the home block.
2 !
2
2 PROTO_VCB[VCB$W_TRANS] = 1;                 ! transaction count
2 PROTO_VCB[VCB$W_MCOUNT] = 1;                ! mount count
2
2 PROTO_VCB[VCB$V_ERASE] = .HOME_BLOCK[HM2$V_ERASE];
2 PROTO_VCB[VCB$V_NOHIGHWATER] = .HOME_BLOCK[HM2$V_NOHIGHWATER];
2
2 IF .MOUNT_OPTIONS[OPT_GROUP]
2 THEN PROTO_VCB[VCB$V_GROUP] = 1;
2 IF .MOUNT_OPTIONS[OPT_SYSTEM]
2 THEN PROTO_VCB[VCB$V_SYSTEM] = 1;
2
2 !
2 ! Copy volume serial number from home block to VCB.
2 !
2 PROTO_VCB [VCB$L_SERIALNUM] = .HOME_BLOCK [HM2$L_SERIALNUM];
2
2 IF .MOUNT_OPTIONS[OPT_IS_FILES11]
3 AND NOT (.MOUNT_OPTIONS[OPT_FOREIGN] AND .MOUNT_OPTIONS[OPT_LABEL])
2 THEN
2                                             ! volume label, blank filled
2     CH$MOVE (HM2$S_VOLNAME, HOME_BLOCK[HM2$T_VOLNAME], PROTO_VCB[VCB$T_VOLNAME])
2 ELSE
2     CH$COPY (.LABEL_STRING[0], .LABEL_STRING[1], ' ',
2              VCB$S_VOLNAME, PROTO_VCB[VCB$T_VOLNAME]);
2
2 IF NOT .MOUNT_OPTIONS[OPT_FOREIGN]
2 THEN
3     BEGIN
3                                             ! relative volume number
3     IF .HOME_BLOCK[HM2$W_RVN] GEQU 256
3     OR .HOME_BLOCK[HM2$W_SETCOUNT] GEQU 256
3     THEN ERR_EXIT (SS$_FILESTRUCT);
3     PROTO_VCB[VCB$W_RVN] = .HOME_BLOCK[HM2$W_RVN];
3     CURRENT_RVN = .HOME_BLOCK[HM2$W_RVN];
3
3     PROTO_VCB[VCB$L_HOMELBN] = .HOMEBLOCK_LBN; ! home block LBN
3     PROTO_VCB[VCB$L_HOME2LBN] = .HOME_BLOCK[HM2$L_ALHOMELBN];
```

```
3
3       IF .PROTO_VCB[VCB$L_HOMELBN] EQL .PROTO_VCB[VCB$L_HOME2LBN]
3       THEN
4           BEGIN
4           PROTO_VCB[VCB$V_HOMBLKBAD] = 1;
4           ERR_MESSAGE (MOUN$_HOMBLKBAD);
3           END;
3
3                                               ! index file bitmap LBN
3       PROTO_VCB[VCB$L_IBMAPLBN] = .HOME_BLOCK[HM2$L_IBMAPLBN];
3       PROTO_VCB[VCB$L_IXHDR2LBN] = .HOME_BLOCK[HM2$L_ALTIDXLBN];
3                                               ! volume cluster factor
3       PROTO_VCB[VCB$W_CLUSTER] = .HOME_BLOCK[HM2$W_CLUSTER];
3                                               ! device blocking factor
4       PROTO_VCB[VCB$B_BLOCKFACT] = (.DEVICE_CHAR[DIB$B_SECTORS]
4                                     * .DEVICE_CHAR[DIB$B_TRACKS]
4                                     * .DEVICE_CHAR[DIB$W_CYLINDERS])
3                                     / .DEVICE_CHAR[DIB$L_MAXBLOCK];
3                                               ! default window size
3       PROTO_VCB[VCB$B_WINDOW] = .HOME_BLOCK[HM2$B_WINDOW];
3       IF .PROTO_VCB[VCB$B_WINDOW] EQL 0
3       THEN PROTO_VCB[VCB$B_WINDOW] = 7;
3       IF .MOUNT_OPTIONS[OPT_SYSTEM]
3       THEN PROTO_VCB[VCB$B_WINDOW] = .ACP$GB_WINDOW;
3       IF .MOUNT_OPTIONS[OPT_WINDOW]
3       THEN PROTO_VCB[VCB$B_WINDOW] = .WINDOW;
3                                               ! directory LRU limit
3       PROTO_VCB[VCB$B_LRU_LIM] = .HOME_BLOCK[HM2$B_LRU_LIM];
3       IF .MOUNT_OPTIONS[OPT_SYSTEM]
3       THEN PROTO_VCB[VCB$B_LRU_LIM] = .ACP$GW_SYSACC;
3       IF .MOUNT_OPTIONS[OPT_ACCESSED]
3       THEN PROTO_VCB[VCB$B_LRU_LIM] = .ACCESSED;
3       IF .MOUNT_OPTIONS[OPT_NOCACHE]
3           OR .STORED_CONTEXT [XQP]            !****TEMP****
3       THEN PROTO_VCB[VCB$B_LRU_LIM] = 0;
3                                               ! default file extend
3       PROTO_VCB[VCB$W_EXTEND] = .HOME_BLOCK[HM2$W_EXTEND];
3       IF .PROTO_VCB[VCB$W_EXTEND] EQL 0
3       THEN PROTO_VCB[VCB$W_EXTEND] = 5;
3       IF .MOUNT_OPTIONS[OPT_EXTENSION]
3       THEN PROTO_VCB[VCB$W_EXTEND] = .EXTENSION;
3                                               ! index file bitmap size
3       PROTO_VCB[VCB$B_IBMAPSIZE] = .HOME_BLOCK[HM2$W_IBMAPSIZE];
3       IF .HOME_BLOCK[HM2$W_IBMAPSIZE] GTRU 255
3       THEN ERR_EXIT (SS$_FILESTRUCT);
3                                               ! maximum number of files
3       PROTO_VCB[VCB$L_MAXFILES] = .HOME_BLOCK[HM2$L_MAXFILES];
3       IF .HOME_BLOCK[HM2$L_MAXFILES] GTRU 255^12
3       THEN ERR_EXIT (SS$_FILESTRUCT);
3       PROTO_VCB[VCB$V_EXTFID] = 1;
3
3       PROTO_VCB[VCB$B_RESFILES] = .HOME_BLOCK[HM2$W_RESFILES];
3       IF .HOME_BLOCK[HM2$W_RESFILES] GTRU 255
3       THEN ERR_EXIT (SS$_FILESTRUCT);
3
3       IF .MOUNT_OPTIONS[OPT_WTHRU]
3           OR .STORED_CONTEXT [XQP]            !****TEMP*****
```

```
3       THEN PROTO_VCB[VCB$V_WRITETHRU] = 1;
3
3       IF .MOUNT_OPTIONS[OPT_NOCACHE]
3       THEN PROTO_VCB[VCB$V_NOCACHE] = 1;
3
3   ! Quota file is always on RVN 1.
3   !
3
3       IF .CURRENT_RVN LEQU 1
3       THEN
3           PROTO_VCB[VCB$W_QUOSIZE] = .QUO_CACHE
3       ELSE
3           QUO_CACHE = 0;
3
3       CH$MOVE (HM2$S_RETAINMIN, HOME_BLOCK[HM2$Q_RETAINMIN], PROTO_VCB[VCB$Q_RETAINMIN]);
3       CH$MOVE (HM2$S_RETAINMAX, HOME_BLOCK[HM2$Q_RETAINMAX], PROTO_VCB[VCB$Q_RETAINMAX]);
3
3   ! Now read the index file header, verify it, and initialize the prototype
3   ! index file FCB. If the primary header is no good, try for the secondary.
3   !
3
3       HEADER_LBN = .PROTO_VCB[VCB$L_IBMAPLBN] + .PROTO_VCB[VCB$B_IBMAPSIZE];
3       STATUS = READ_BLOCK (.HEADER_LBN, BUFFER);
3       IF NOT .STATUS OR NOT CHECK_HEADER2 (BUFFER, UPLIT WORD (1, 1, 0))
3       THEN
4           BEGIN
4           USER_STATUS = 1;
4           PROTO_VCB[VCB$V_IDXHDRBAD] = 1;
4           PROTO_VCB[VCB$V_NOALLOC] = 1;
4           ERR_MESSAGE (MOUN$_IDXHDRBAD);
4           HEADER_LBN = .PROTO_VCB[VCB$L_IXHDR2LBN];
4           STATUS = READ_BLOCK (.HEADER_LBN, BUFFER);
3           END;
3       IF NOT .STATUS THEN ERR_EXIT (.STATUS);
3       IF NOT CHECK_HEADER2 (BUFFER, UPLIT WORD (1, 1, 0))
3       THEN
3           ERR_EXIT (SS$_NOHOMEBLK);
3
3       CH$FILL (0, FCB$C_LENGTH, PROTO_FCB);
3       PROTO_FCB[FCB$L_STVBN] = 1;
3       INIT_FCB2 (PROTO_FCB, BUFFER);
3       PROTO_FCB[FCB$W_ACNT] = 1;
3       PROTO_FCB[FCB$W_REFCNT] = 1;
3
3   ! Build the prototype index file window.
3   !
3
3       CH$FILL (0, WCB$C_LENGTH, PROTO_WCB);
3       PROTO_WCB[WCB$W_SIZE] = WCB$C_LENGTH + WINDOW_SIZE;
3       PROTO_WCB[WCB$V_READ] = 1;
3       TURN_WINDOW2 (PROTO_WCB, BUFFER, 3, 1, .PROTO_VCB[VCB$W_RVN]);
3
3   ! Now read the storage map file header and find the starting LBN of the
3   ! storage map. Note that the storage map size is computed from the volume
3   ! size and cluster factor, since the storage map file is rounded up to the
3   ! next cluster boundary.
3   !
```

```
3
3      STATUS = READ_BLOCK (.PROTO_VCB[VCB$L_IBMAPLBN] + .PROTO_VCB[VCB$B_IBMAPSIZE] + 1, BUFFER);
3      IF NOT .STATUS OR NOT CHECK_HEADER2 (BUFFER, UPLIT WORD (2, 2, 0))
3      THEN
4          BEGIN
4
4  ! The shared file system cannot tolerate failure to read the storage
4  ! control block, because that is where the volume label used for
4  ! locking is stored.
4  !
4  ! If NOALLOC could be believed clusterwide such that we were guaranteed
4  ! it was safe to proceed without doing any locking, failure to get
4  ! SCB$T_VOLOCKNAME could be tolerated.  However, being able to issue
4  ! an unlock control function makes that difficult.
4  !
4
4          IF .STORED_CONTEXT [XQP]
4          THEN
4              IF .STATUS EQL SS$_VOLINV
4              THEN
4                  ERR_EXIT (SS$_VOLINV)
4              ELSE
4                  ERR_EXIT (MOUN$_MAPHDRBAD);
4
4          ERR_MESSAGE (MOUN$_MAPHDRBAD);
4          PROTO_VCB[VCB$V_NOALLOC] = 1;
4          END
4
3      ELSE
4          BEGIN
4          MAP_POINTER = BUFFER + .BUFFER[FH2$B_MPOFFSET]*2;
4          GET_MAP_POINTER ();
6          COUNT = ((.DEVICE_CHAR[DIB$L_MAXBLOCK] + .PROTO_VCB[VCB$W_CLUSTER] - 1)
4                  / .PROTO_VCB[VCB$W_CLUSTER] + 4095) / 4096;
4          IF .COUNT GTRU 255
4          THEN ERR_EXIT (SS$_FILESTRUCT);
4
4          PROTO_VCB[VCB$L_SBMAPLBN] = .LBN + 1;
4          PROTO_VCB[VCB$B_SBMAPSIZE] = .COUNT;
4
4  ! Now read the storage control block and check the various dirty bits, and
4  ! issue messages if the volume was not properly dismounted. Then set the
4  ! appropriate bits and rewrite the storage control block. If the write fails,
4  ! write-lock the volume.
4  !
4
4          STATUS = READ_BLOCK (.LBN, BUFFER);
4          IF NOT .STATUS
4          THEN
4
4  ! See comment above on failure to read sbm header.
4  !
4              IF .STATUS EQL SS$_VOLINV
4              THEN
4                  ERR_EXIT (SS$_VOLINV)
4              ELSE
4                  ERR_EXIT (MOUN$_BITMAPERR, 0, .STATUS);
```

```
4
4          IF .BUFFER[SCB$V_MAPDIRTY]
4          THEN
5              BEGIN
5              ERR_MESSAGE (MOUN$_BITMAPINV);
5              PROTO_VCB[VCB$V_NOALLOC] = 1;
4              END;
4
4  ! Get volume lock and establish volume lock name.
4  !
4
4          GET_VOLUME_LOCK_NAME ();
4
4          VOLOCK_COUNT = 0;
4
4          IF .STORED_CONTEXT [XQP]
4          THEN
5              BEGIN
6              IF NOT (STATUS = KERNEL_CALL (GET_VOLUME_LOCK))
5              THEN
5                  ERR_EXIT (.STATUS);
5
5              VOLOCK_COUNT = .VOLOCK_COUNT - 1;            ! Don't count ourself.
5
5              IF .DEV_CTX [DC_NOTFIRST_ INT] NEQ .VOL_CTX [VC_NOTFIRST_MNT]
5              THEN
5                  ERR_EXIT (MOUN$_VOLALRMNT);
5
4              END;
4
4          CH$MOVE (8, BUFFER [SCB$Q_MOUNTTIME], PROTO_VCB [VCB$Q_MOUNTTIME]);
4
4          IF NOT .PROTO_VCB[VCB$V_NOALLOC]
4          AND .MOUNT_OPTIONS[OPT_WRITE]
4          THEN
5              BEGIN
5
5              IF NOT .DEV_CTX [DC_NOTFIRST_MNT]    ! i.e., first
5              THEN
6                  BEGIN
6                  CH$MOVE (12, PROTO_VCB [VCB$T_VOLCKNAM], BUFFER [SCB$T_VOLOCKNAME]);
6                  $GETTIM (TIMADR = BUFFER [SCB$Q_MOUNTTIME]);
5                  END;
5
5              IF .BUFFER [SCB$W_WRITECNT] NEQ .VOLOCK_COUNT
5              THEN
5
5  ! If the count of volume locks does not match the count in the
5  ! storage control block, someone that once mounted this volume
5  ! did not dismount it.
5  !
5  ! Set the count straight now, but also note in status2 which caches
5  ! need rebuilding by ORing the STATUS flags into it.
5  ! The STATUS2 flags are only cleared upon successful completion
5  ! of a rebuild, so we will continue to attempt a rebuild until
5  ! the volume is actually rebuilt.
5  !
```

```
5
6                   BEGIN
6                   BUFFER [SCB$L_STATUS2] = .BUFFER [SCB$L_STATUS2]
6                                           OR .BUFFER [SCB$L_STATUS];
6                   BUFFER [SCB$W_WRITECNT] = .VOLOCK_COUNT;
5                   END;
5
5               IF .BUFFER [SCB$V_MAPALLOC2] OR .BUFFER [SCB$V_FILALLOC2]
5               THEN
5                   CLEANUP_FLAGS [CLF_REBUILD] = 1;
5
5               IF .BUFFER [SCB$V_QUODIRTY2]
5                   AND .CURRENT_RVN LEQU 1
5               THEN
6                   BEGIN
6                   IF NOT .MOUNT_OPTIONS [OPT_NOQUOTA]
6                   THEN
6                       CLEANUP_FLAGS [CLF_REBUILDQUO] = 1;
6                   END
5               ELSE
5                   BUFFER [SCB$V_QUODIRTY2] = 0;
5
5               BUFFER [SCB$W_WRITECNT] = .BUFFER [SCB$W_WRITECNT] + 1;
5
5 ! Note which caches we are enabling by setting the corresponding flag
5 ! in the SCB.  These may already be set if
5 ! the disk has been mounted elsewhere in the cluster with the
5 ! same cache enabled.
5 !
5
5               IF .EXT_CACHE NEQ 0
5               THEN
5                   BUFFER [SCB$V_MAPALLOC] = 1;
5
5               IF .FID_CACHE NEQ 1             ! 1 is no caching
5               THEN
5                   BUFFER [SCB$V_FILALLOC] = 1;
5
5 ! Note that we don't know yet whether quotas will be enabled until
5 ! we actually try to turn them on in MAKE_DISK_MOUNT.  So far all
5 ! we know is that we intend to turn them on if a quota.sys file is
5 ! really there.
5 !
5
6               IF (.QUO_CACHE NEQ 0 AND .CURRENT_RVN LEQU 1)
5                   AND NOT .MOUNT_OPTIONS [OPT_NOQUOTA]
5               THEN
5                   BUFFER [SCB$V_QUODIRTY] = 1;
5
5 ! NOTE:  This read/write of the SCB is using the volume lock to
5 ! serialize with the DISMOUNT subfunction (ACPCONTROL qio) which
5 ! lowers the writecnt.  It does NOT correctly serialize with the
5 ! REBUILD routine which only holds the volume blocking lock (LOCK_VOLUME).
5 ! MOUNT does not respect the blocking lock because there isn't enough
5 ! state yet to do it (volume sets are the problem).
5 ! The correct solution here is probably to not rewrite the SCB at all
5 ! in this leg of code (in mount), but rather have the file system do
```

```
5 ! is as part of the MOUNT function QIO issued from START_ACP (called
5 ! from the MAKE_DISK_MOUNT routine).  It can then respect the volume
5 ! blocking lock (LOCK_VOL function) and interlock correctly with
5 ! the bitmap rebuild, which does need to rewrite it.  The LOCK_VOL function
5 ! should also make the lock count vs writecnt test and OR the STATUS flags
5 ! into the STATUS2 flags if the counts mismatch, and rewrite the SCB
5 ! (in an interlocked fashion) for the bitmap rebuilder to look at and
5 ! correctly determine whether a rebuild is really necessary when it
5 ! actually executes.
5 ! This still leaves the problem of what block can mount read and attempt
5 ! to write back to determine whether the volume is write-locked or not.
5 ! All storage bitmap and index file bitmap blocks are really off limits
5 ! because they are read and written by the bitmap rebuilder under the
5 ! volume blocking lock (LOCK_VOL).  The home block, maybe?
5 !
5
5                    CHECKSUM (BUFFER);
5                    STATUS = WRITE_BLOCK (.LBN, BUFFER);
5
5 ! Bump storage bitmap sequence number in the volume lock value block
5 ! to invalidate potential copies in file system caches elsewhere.
5 !
5
5                    VOL_CTX [VC_SBMSEQNUM] = .VOL_CTX [VC_SBMSEQNUM] + 1;
5
5                    IF .STATUS
5                    THEN
5                        CH$MOVE (8, BUFFER [SCB$Q_MOUNTTIME],
5                                                        PROTO_VCB [VCB$Q_MOUNTTIME])
5                    ELSE
6                        BEGIN
6                        IF .STATUS EQL SS$_VOLINV
6                        THEN
6                            ERR_EXIT (SS$_VOLINV);
6                        IF .STATUS EQL SS$_WRITLCK
6                        THEN ERR_MESSAGE (MOUN$_WRITELOCK)
6                        ELSE ERR_MESSAGE (MOUN$_WRITESCB, 0, .STATUS);
6                        MOUNT_OPTIONS[OPT_WRITE] = 0;
5                        END;
5
5                    CLEANUP_FLAGS[CLF_CLEANSCB] = 1;
5
4                    END;
4
4
4 ! If this is not the first mount for this device, make sure
4 ! essential mount parameters are consistent with other mounts
4 ! elsewhere.
4 ! For either the first mount of a cluster available device, or
4 ! for mounts of local disks, the routine is not called.
4 !
4
4                IF .DEV_CTX [DC_NOTFIRST_MNT]
4                THEN
4                    CHECK_CLUSTER_SANITY();
4
4
```

```
4 ! Scan the index file bitmap from the end backwards looking for the highest
4 ! file number. Compute its index file VBN and check against the index file
4 ! EOF. If the EOF is short, set the EOF delta high so that the first create
4 ! will update the index file header.
4 ! If this is not the initial mount of the volume, simply copy the index
4 ! file eof from the value block.
4 !
4
4           IF .VOL_CTX [VC_NOTFIRST_MNT]
4           THEN
4               PROTO_FCB [FCB$L_EFBLK] = .VOL_CTX [VC_IDXFILEOF]
4           ELSE
4           IDX_SCAN:
5               BEGIN
5               DECR J FROM .PROTO_VCB[VCB$B_IBMAPSIZE] - 1 TO 0
5               DO
6                   BEGIN
6                   MAP BUFFER : VECTOR;
6                   STATUS = READ_BLOCK (.PROTO_VCB[VCB$L_IBMAPLBN] + .J, BUFFER);
6                   IF NOT .STATUS
6                   THEN
7                       BEGIN
7                       IF .STATUS EQL SS$_VOLINV
7                       THEN
7                           ERR_EXIT (SS$_VOLINV)
7                       ELSE
7                           ERR_MESSAGE (MOUN$_IDXMAPERR, 0, .STATUS);
7                       PROTO_VCB[VCB$V_NOALLOC] = 1;
7                       IDX_EOF = 0;
7                       LEAVE IDX_SCAN;
6                       END;
6
6                   DECR I FROM 127 TO 0
6                   DO
7                       BEGIN
7                       IF .BUFFER[.I] NEQ 0
7                       THEN
8                           BEGIN
8                           IDX_EOF = .J*4096 + .I*32 + LEFT_ONE (.BUFFER[.I])
8                               + .PROTO_VCB[VCB$B_IBMAPSIZE] + .PROTO_VCB[VCB$W_CLUSTER]*4;
8                           LEAVE IDX_SCAN;
7                           END;
6                       END;
5                   END;
4               END;                            ! end of block IDX_SCAN
4
4           IDX_EOF = MINU (.IDX_EOF, .PROTO_FCB[FCB$L_FILESIZE]);
4           IF .IDX_EOF GTRU .PROTO_FCB[FCB$L_EFBLK]
4           THEN
5               BEGIN
5               PROTO_FCB[FCB$L_EFBLK] = .IDX_EOF;
5               PROTO_VCB[VCB$B_EOFDELTA] = 250;
4               END;
4
4           VOL_CTX [VC_IDXFILEOF] = .PROTO_FCB [FCB$L_EFBLK];
4
4 ! Scan the storage map to compute the number of free blocks on the volume.
```

```
4 !
4
4           IF .VOL_CTX [VC_NOTFIRST_MNT]
4           THEN
4               PROTO_VCB [VCB$L_FREE] = .VOL_CTX [VC_VOLFREE]
4           ELSE
5               BEGIN
5
5               FREE = 0;
5               DECR J FROM .COUNT TO 1 DO
6                   BEGIN
6                   MAP BUFFER : VECTOR;
6
6                   LBN = .LBN + 1;
6                   STATUS = READ_BLOCK (.LBN, BUFFER);
6                   IF NOT .STATUS
6                   THEN
7                       BEGIN
7                       IF .STATUS EQL SS$_VOLINV
7                       THEN
7                           ERR_EXIT (SS$_VOLINV)
7                       ELSE
7                           ERR_MESSAGE (MOUN$_BITMAPERR, 0, .STATUS);
7                       PROTO_VCB[VCB$V_NOALLOC] = 1;
6                       END;
6
6                   INCR I FROM 0 TO 127 DO
7                       BEGIN
7                       X = .BUFFER[.I];
7                       IF .X NEQ 0
7                       THEN
8                           BEGIN
8                           B2 = 0;
8                           WHILE 1 DO
9                               BEGIN
9                               IF FFS (B2, %REF (32-.B2), X, B1)
9                               THEN EXITLOOP;
9                               FFC (B1, %REF (32-.B1), X, B2);
9                               FREE = .FREE + .B2 - .B1;
9                               IF .B2 GEQ 32 THEN EXITLOOP;
8                               END;
7                           END;
6                       END;
5                   END;
5
5               PROTO_VCB[VCB$L_FREE] = .FREE * .PROTO_VCB[VCB$W_CLUSTER];
5               VOL_CTX [VC_VOLFREE] = .PROTO_VCB [VCB$L_FREE];
4               END;
4
3           END;                                ! end of storage bitmap hdr read success
3
3       END                                     ! end of Files-11 specific mount processing
2 ELSE
3       BEGIN
3
3 ! This is a foreign mount. If this is a shared foreign mount,
3 ! take out the volume lock.
```

```
3 !
3 ! If this is not the first mount for this device, make sure
3 ! essential mount parameters are consistent with other mounts
3 ! elsewhere.
3 ! For either the first mount of a cluster available device, or
3 ! for mounts of local disks, the routine is not called.
3 !
3
3     IF NOT .MOUNT_OPTIONS [OPT_NOSHARE]
3     THEN
4         BEGIN
4         GET_VOLUME_LOCK_NAME ();
5         IF NOT (STATUS = KERNEL_CALL (GET_VOLUME_LOCK))
4         THEN
4             ERR_EXIT (.STATUS);
4         IF .DEV_CTX [DC_NOTFIRST_MNT] NEQ .VOL_CTX [VC_NOTFIRST_MNT]
4         THEN
4             ERR_EXIT (MOUN$_VOLALRMNT);
3         END;
3
3     IF .DEV_CTX [DC_NOTFIRST_MNT]
3     THEN
3         CHECK_CLUSTER_SANITY();
3
2     END;                                    ! end of foreign-specific mount processing
2
2
2 ! Finally call the kernel mode routine to make it all real. Note that all the
2 ! hookups, including generating the mounted volume list entry, are done
2 ! within one kernel mode call so that they are uninterruptible by the user.
2 !
2
2 IF .MOUNT_OPTIONS[OPT_OVR_LOCK]
2 THEN PROTO_VCB[VCB$V_NOALLOC] = 0;
2
2 STATUS = KERNEL_CALL (MAKE_DISK_MOUNT);
2 IF NOT .STATUS
2 THEN
3     BEGIN
3     IF .STATUS[STS$V_SEVERITY] EQL STS$K_SEVERE
3     THEN ERR_EXIT (.STATUS)
3     ELSE
4         BEGIN
4         IF .IO_STATUS
4         THEN ERR_MESSAGE (.STATUS)
4         ELSE ERR_MESSAGE (.STATUS, 0, .IO_STATUS<0,16>);
3         END;
2     END;
2
2 ! If this volume is being bound into a volume set, now do the on-disk
2 ! modifications.
2 !
2
2 CLEANUP_FLAGS[CLF_DISMOUNT] = 1;        ! cleanup from here requires a full dismount
2
2 IF TESTBITSC (MOUNT_OPTIONS[OPT_DO_BIND])
2 THEN BIND_VOLUME ();
```

```
2
2 ! Announce that the volume is mounted.
2 !
2
2 ERR_MESSAGE (MOUN$_MOUNTED, 3, VCB$S_VOLNAME, PROTO_VCB[VCB$T_VOLNAME], PHYS_NAME[.DEVICE_INDEX*2]);
2
2 !
2 ! If a FILES-11 volume is mounted with a reduced block cache, output the
2 ! appropriate informational message.
2 !
2
3 IF  ( NOT .CACHE_STATUS )
3 AND ( NOT .MOUNT_OPTIONS [OPT_FOREIGN] )
2 THEN
2     ERR_MESSAGE (MOUN$_REDCACHE);
2
2 ! Earlier in this routine, the CLF_REBUILD flag was set if either of
2 ! the bitmaps (storage and file number) needs rebuilding.  CLF_REBUILDQUO
2 ! was set if the quota file needs rebuilding and quota are in fact
2 ! enabled.  Check if anything needs rebuilding and, if so, whether
2 ! it should be done now.
2 !
2
2 IF .CLEANUP_FLAGS [CLF_REBUILD] OR .CLEANUP_FLAGS [CLF_REBUILDQUO]
2 THEN
2     IF .MOUNT_OPTIONS [OPT_NOREBUILD]
2     THEN
3         BEGIN
3         ERR_MESSAGE (MOUN$_REBLDREQD);
3         CLEANUP_FLAGS [CLF_REBUILD] = 0;
3         CLEANUP_FLAGS [CLF_REBUILDQUO] = 0;
3         END
2     ELSE
2         IF .CLEANUP_FLAGS [CLF_REBUILDQUO]
2         THEN
2             CLEANUP_FLAGS [CLF_REBUILD] = 1;
2
1 END;                                      ! end of routine MOUNT_DISK2

                                                         .TITLE  MOUDK2
                                                         .IDENT  \V04-002\

                                                         .PSECT  $PLIT$,NOWRT,NOEXE,2

                        0000  0001  0001  00000 P.AAA:   .WORD   1, 1, 0                          ;
                        0000  0001  0001  00006 P.AAB:   .WORD   1, 1, 0                          ;
                        0000  0002  0002  0000C P.AAC:   .WORD   2, 2, 0                          ;

                                                         .PSECT  $OWN$,NOEXE,2

                                            00000 IO_STATUS:
                                                         .BLKB   8

                                                         .PSECT  $GLOBAL$,NOEXE,2

                                            00000 BUFFER::.BLKB  512
```

```
                                              00200 PROTO_VCB::
                                                            .BLKB   236
                                              002EC PROTO_FCB::
                                                            .BLKB   180
                                              003A0 PROTO_WCB::
                                                            .BLKB   228
                                              00484 VOLUME_UIC::
                                                            .BLKB   4
                                              00488 CACHE_STATUS::
                                                            .BLKB   4

                                                            .EXTRN  DEV_CTX, VOL_CTX
                                                            .EXTRN  VOLOCK_COUNT, STORED_CONTEXT
                                                            .EXTRN  MOUNT_OPTIONS, CLEANUP_FLAGS
                                                            .EXTRN  DEVICE_CHAR, USER_STATUS
                                                            .EXTRN  LABEL_STRING, DEVICE_INDEX
                                                            .EXTRN  PHYS_NAME, STRUCT_NAME
                                                            .EXTRN  DRIVE_COUNT, WINDOW
                                                            .EXTRN  ACCESSED, EXTENSION
                                                            .EXTRN  EXT_CACHE, FID_CACHE
                                                            .EXTRN  QUO_CACHE, EXT_LIMIT
                                                            .EXTRN  HOME_BLOCK, HOMEBLOCK_LBN
                                                            .EXTRN  HEADER_LBN, CURRENT_RVN
                                                            .EXTRN  CURRENT_VCB, CTL$GL_PHD
                                                            .EXTRN  ACP$GW_EXTCACHE
                                                            .EXTRN  ACP$GW_FIDCACHE
                                                            .EXTRN  ACP$GW_QUOCACHE
                                                            .EXTRN  ACP$GW_EXTLIMIT
                                                            .EXTRN  ACP$GB_WRITBACK
                                                            .EXTRN  ACP$GB_WINDOW, ACP$GW_SYSACC
                                                            .EXTRN  CHECK_CLUSTER_SANITY
                                                            .EXTRN  GET_VOLUME_LOCK
                                                            .EXTRN  GET_VOLUME_LOCK_NAME
                                                            .EXTRN  GET_UIC, CHECK_HEADER2
                                                            .EXTRN  CHECKSUM, READ_BLOCK
                                                            .EXTRN  WRITE_BLOCK, INIT_FCB2
                                                            .EXTRN  TURN_WINDOW2, LEFT_ONE
                                                            .EXTRN  GET_MAP_POINTER
                                                            .EXTRN  BIND_VOLUME, SYS$CMKRNL
                                                            .EXTRN  SYS$GETTIM

                                                            .PSECT  $CODE$,NOWRT,2

                                          0FFC 00000        .ENTRY  MOUNT_DISK2, Save R2,R3,R4,R5,R6,R7,R8,R9,-  ; 0789
                                                                    R10,R11                                          ;
                            5B     0000G  CF   9E 00002     MOVAB   MOUNT_OPTIONS, R11                              ;
                            5A     0000'  CF   9E 00007     MOVAB   BUFFER, R10                                     ;
                            6D     08C4   CF   DE 0000C     MOVAL   114$, (FP)                                      ; 0826
                     0000G  CF     0200   CA   9E 00011     MOVAB   PROTO_VCB, CURRENT_VCB                          ; 0919
 00EC   8F           00     6E            00   2C 00018     MOVC5   #0, (SP), #0, #236, PROTO_VCB                   ; 0920
                                   0200   CA      0001F                                                             ;
                      0488  CA            01   D0 00022     MOVL    #1, CACHE_STATUS                                ; 0921
                                          7E   D4 00027     CLRL    -(SP)                                           ; 0932
                                          5E   DD 00029     PUSHL   SP                                              ;
                                   0000G  CF   9F 0002B     PUSHAB  GET_UIC                                         ;
                 00000000G  9F            03   FB 0002F     CALLS   #3, @#SYS$CMKRNL                                ;
                            52            50   D0 00036     MOVL    R0, PROCESS_UIC                                 ;
                      50 00000000G  9F  D0 00039            MOVL    @#CTL$GL_PHD, PRIVILEGE_MASK                          ; 0933
                            0484    CA  D4 00040            CLRL    VOLUME_UIC                                            ; 0934
          07      04    AB          01  E1 00044            BBC     #1, MOUNT_OPTIONS+4, 1$                               ; 0935
                0484    CA   0000G  CF  D0 00049            MOVL    HOME_BLOCK+44, VOLUME_UIC                             ; 0936
                        0D      04  AB  E9 00050  1$:       BLBC    MOUNT_OPTIONS+4, 2$                                   ; 0939
          09            60          15  E0 00054            BBS     #21, (PRIVILEGE_MASK), 2$                             ; 0940
                                    07  13 00058            BEQL    2$                                                    ; 0941
                        52    0484  CA  D1 0005A            CMPL    VOLUME_UIC, PROCESS_UIC                               ; 0942
                                    31  12 0005F            BNEQ    6$                                                    ;
                        19      03  AB  E8 00061  2$:       BLBS    MOUNT_OPTIONS+3, 3$                                   ; 0946
          14      03    AB          01  E0 00065            BBS     #1, MOUNT_OPTIONS+3, 3$                               ; 0947
          0F      03    AB          02  E0 0006A            BBS     #2, MOUNT_OPTIONS+3, 3$                               ; 0948
          0A      03    AB          03  E0 0006F            BBS     #3, MOUNT_OPTIONS+3, 3$                               ; 0949
          05      03    AB          04  E0 00074            BBS     #4, MOUNT_OPTIONS+3, 3$                               ; 0950
          04      05    AB          05  E1 00079            BBC     #5, MOUNT_OPTIONS+5, 4$                               ; 0951
          10            60          12  E1 0007E  3$:       BBC     #18, (PRIVILEGE_MASK), 6$                             ; 0953
                                    6B  95 00082  4$:       TSTB    MOUNT_OPTIONS                                         ; 0957
                                    04  18 00084            BGEQ    5$                                                    ;
          08            60          03  E1 00086            BBC     #3, (PRIVILEGE_MASK), 6$                              ; 0958
                        0D      01  AB  E9 0008A  5$:       BLBC    MOUNT_OPTIONS+1, 7$                                   ; 0962
          09            60          02  E0 0008E            BBS     #2, (PRIVILEGE_MASK), 7$                              ; 0963
                                    24  DD 00092  6$:       PUSHL   #36                                                   ; 0966
             00000000G  00          01  FB 00094            CALLS   #1, LIB$STOP                                          ;
          05      01    AB          03  E1 0009B  7$:       BBC     #3, MOUNT_OPTIONS+1, 8$                               ; 0968
                0484    CA          52  D0 000A0            MOVL    PROCESS_UIC, VOLUME_UIC                               ; 0969
          05      03    AB          04  E0 000A5  8$:       BBS     #4, MOUNT_OPTIONS+3, 9$                               ; 0975
                0000G   CF          04  88 000AA            BISB2   #4, STORED_CONTEXT                                    ; 0977
                        50   0000G  CF  3C 000AF  9$:       MOVZWL  HOME_BLOCK+38, R0                                     ; 0986
                        31      05  AB  E9 000B4            BLBC    MOUNT_OPTIONS+5, 11$                                  ; 0983
                                    1D  13 000B8            BEQL    10$                                                   ; 0986
  0C      20    0000G   DF   0000G  CF  2D 000BA            CMPC5   STRUCT_NAME, @STRUCT_NAME+4, #32, #12, -              ; 0990
                             0000G  CF     000C3                    HOME_BLOCK+460                                        ;
                                    2F  13 000C6            BEQL    12$                                                   ;
                    00728194        8F  DD 000C8            PUSHL   #7504276                                              ; 0991
             00000000G  00          01  FB 000CE            CALLS   #1, LIB$STOP                                          ;
                                    20  11 000D5            BRB     12$                                                   ; 0986
  0C      20    0000G   DF   0000G  CF  2C 000D7  10$:      MOVC5   STRUCT_NAME, @STRUCT_NAME+4, #32, #12, -              ; 0997
                             0000G  CF     000E0                    HOME_BLOCK+460                                        ;
                  05    AB          02  88 000E3            BISB2   #2, MOUNT_OPTIONS+5                                   ; 0998
                                    0E  11 000E7            BRB     12$                                                   ; 0983
                                    0C  13 000E9  11$:      BEQL    12$                                                   ; 1004
                0000G   CF          0C  D0 000EB            MOVL    #12, STRUCT_NAME                                      ; 1007
                0000G   CF   0000G  CF  9E 000F0            MOVAB   HOME_BLOCK+460, STRUCT_NAME+4                         ; 1008
                             0000G  CF  D5 000F7  12$:      TSTL    EXT_CACHE                                             ; 1015
                                    09  12 000FB            BNEQ    13$                                                   ;
                0000G   CF 00000000G  9F  3C 000FD          MOVZWL  @#ACP$GW_EXTCACHE, EXT_CACHE                          ; 1016
                                05  AB  95 00106  13$:      TSTB    MOUNT_OPTIONS+5                                       ; 1017
                                    04  18 00109            BGEQ    14$                                                   ;
                             0000G  CF  D4 0010B            CLRL    EXT_CACHE                                             ; 1018
                             0000G  CF  D5 0010F  14$:      TSTL    FID_CACHE                                             ; 1020
                                    09  12 00113            BNEQ    15$                                                   ;
                0000G   CF 00000000G  9F  3C 00115          MOVZWL  @#ACP$GW_FIDCACHE, FID_CACHE                          ; 1021
                        02      06  AB  E8 0011E  15$:      BLBS    MOUNT_OPTIONS+6, 16$                                  ; 1022
                                    05  12 00122            BNEQ    17$                                                   ; 1023
                0000G   CF          01  D0 00124  16$:      MOVL    #1, FID_CACHE                                         ; 1024
                             0000G  CF  D5 00129  17$:      TSTL    QUO_CACHE                                             ; 1026
                                    09  12 0012D            BNEQ    18$                                                   ;
                            0000G  CF 00000000G  9F  3C 0012F         MOVZWL  @#ACP$GW_QUOCACHE, QUO_CACHE                    ; 1027
                     04        06  AB            01  E1 00138 18$:    BBC     #1, MOUNT_OPTIONS+6, 19$                        ; 1028
                                        0000G    CF  D4 0013D         CLRL    QUO_CACHE                                       ; 1029
                                        0000G    CF  D5 00141 19$:    TSTL    EXT_LIMIT                                       ; 1031
                                                 09  12 00145         BNEQ    20$                                             ;
                            0000G  CF 00000000G  9F  3C 00147         MOVZWL  @#ACP$GW_EXTLIMIT, EXT_LIMIT                    ; 1032
                            020C   CA            01  B0 00150 20$:    MOVW    #1, PROTO_VCB+12                                ; 1037
                            024C   CA            01  B0 00155         MOVW    #1, PROTO_VCB+76                                ; 1038
           50      0000G    CF                   01  02 EF 0015A      EXTZV   #2, #1, HOME_BLOCK+42, R0                       ; 1040
    0253   CA               01                   03  50 F0 00161      INSV    R0, #3, #1, PROTO_VCB+83                        ;
           50      0000G    CF                   01  03 EF 00168      EXTZV   #3, #1, HOME_BLOCK+42, R0                       ; 1041
    0253   CA               01                   04  50 F0 0016F      INSV    R0, #4, #1, PROTO_VCB+83                        ;
                                                 6B  95 00176         TSTB    MOUNT_OPTIONS                                   ; 1043
                                                 06  18 00178         BGEQ    21$                                             ;
                            020B   CA        40  8F  88 0017A         BISB2   #64, PROTO_VCB+11                               ; 1044
                                   06        01  AB  E9 00180 21$:    BLBC    MOUNT_OPTIONS+1, 22$                            ; 1045
                            020B   CA        80  8F  88 00184         BISB2   #128, PROTO_VCB+11                              ; 1046
                            0264   CA     0000G  CF  D0 0018A 22$:    MOVL    HOME_BLOCK+456, PROTO_VCB+100                   ; 1051
                     14        04  AB            01  E1 00191         BBC     #1, MOUNT_OPTIONS+4, 24$                        ; 1053
                     05        01  AB            03  E1 00196         BBC     #3, MOUNT_OPTIONS+1, 23$                        ; 1054
                                             03  AB  95 0019B         TSTB    MOUNT_OPTIONS+3                                 ;
                                                 0A  19 0019E         BLSS    24$                                             ;
                 0214      CA      0000G   CF        0C  28 001A0 23$:    MOVC3   #12, HOME_BLOCK+472, PROTO_VCB+20           ; 1057
                                                 0C  11 001A8         BRB     25$                                             ;
           0C              20      0000G   DF     0000G  CF  2C 001AA 24$:    MOVC5   LABEL_STRING, @LABEL_STRING+4, #32, #12, -  ; 1060
                                                  0214   CA     001B3             PROTO_VCB+20                                ;
                     03        01  AB            03  E1 001B6 25$:    BBC     #3, MOUNT_OPTIONS+1, 26$                        ; 1062
                                               0606  31 001BB         BRW     101$                                            ;
                            0100   8F     0000G  CF  B1 001BE 26$:    CMPW    HOME_BLOCK+38, #256                             ; 1066
                                                 09  1E 001C5         BGEQU   27$                                             ;
                            0100   8F     0000G  CF  B1 001C7         CMPW    HOME_BLOCK+40, #256                             ; 1067
                                                 0C  1F 001CE         BLSSU   28$                                             ;
                              7E          08C0   8F  3C 001D0 27$:    MOVZWL  #2240, -(SP)                                    ; 1068
                        00000000G  00            01  FB 001D5         CALLS   #1, LIB$STOP                                    ;
                            020E   CA     0000G  CF  B0 001DC 28$:    MOVW    HOME_BLOCK+38, PROTO_VCB+14                     ; 1069
                            0000G  CF     0000G  CF  3C 001E3         MOVZWL  HOME_BLOCK+38, CURRENT_RVN                      ; 1070
                            0224   CA     0000G  CF  D0 001EA         MOVL    HOMEBLOCK_LBN, PROTO_VCB+36                     ; 1072
                            0228   CA     0000G  CF  D0 001F1         MOVL    HOME_BLOCK+4, PROTO_VCB+40                      ; 1073
                            0228   CA      0224  CA  D1 001F8         CMPL    PROTO_VCB+36, PROTO_VCB+40                      ; 1075
                                                 12  12 001FF         BNEQ    29$                                             ;
                            020B   CA            04  88 00201         BISB2   #4, PROTO_VCB+11                                ; 1078
                                      00729000   8F  DD 00206         PUSHL   #7507968                                        ; 1079
                        00000000G  00            01  FB 0020C         CALLS   #1, LIB$SIGNAL                                  ;
                            0230   CA     0000G  CF  D0 00213 29$:    MOVL    HOME_BLOCK+24, PROTO_VCB+48                     ; 1083
                            022C   CA     0000G  CF  D0 0021A         MOVL    HOME_BLOCK+8, PROTO_VCB+44                      ; 1084
                            023C   CA     0000G  CF  B0 00221         MOVW    HOME_BLOCK+14, PROTO_VCB+60                     ; 1086
                                   50     0000G  CF  9A 00228         MOVZBL  DEVICE_CHAR+8, R0                               ; 1089
                                   51     0000G  CF  9A 0022D         MOVZBL  DEVICE_CHAR+9, R1                               ;
                                   50            51  C4 00232         MULL2   R1, R0                                          ;
                                   52     0000G  CF  3C 00235         MOVZWL  DEVICE_CHAR+10, R2                              ; 1090
                                   50            52  C4 0023A         MULL2   R2, R0                                          ;
                     51            50     0000G  CF  C7 0023D         DIVL3   DEVICE_CHAR+112, R0, R1                         ; 1091
                            0252   CA            51  90 00243         MOVB    R1, PROTO_VCB+82                                ;
                            0248   CA     0000G  CF  90 00248         MOVB    HOME_BLOCK+68, PROTO_VCB+72                     ; 1093
                                                 05  12 0024F         BNEQ    30$                                             ; 1094
                            0248   CA            07  90 00251         MOVB    #7, PROTO_VCB+72                                ; 1095
                                   09        01  AB  E9 00256 30$:    BLBC    MOUNT_OPTIONS+1, 31$                            ; 1096
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                                        F  1
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                0248  CA 00000000G  9F  90 0025A          MOVB    @#ACP$GB_WINDOW, PROTO_VCB+72                 ; 1097
                      07        03  AB  E9 00263 31$:     BLBC    MOUNT_OPTIONS+3, 32$                          ; 1098
                0248  CA     0000G  CF  90 00267          MOVB    WINDOW, PROTO_VCB+72                          ; 1099
                0249  CA     0000G  CF  90 0026E 32$:     MOVB    HOME_BLOCK+69, PROTO_VCB+73                   ; 1101
                      09        01  AB  E9 00275          BLBC    MOUNT_OPTIONS+1, 33$                          ; 1102
                0249  CA 00000000G  9F  90 00279          MOVB    @#ACP$GW_SYSACC, PROTO_VCB+73                 ; 1103
        07        03  AB            01  E1 00282 33$:     BBC     #1, MOUNT_OPTIONS+3, 34$                      ; 1104
                0249  CA     0000G  CF  90 00287          MOVB    ACCESSED, PROTO_VCB+73                        ; 1105
        06        06  AB            04  E0 0028E 34$:     BBS     #4, MOUNT_OPTIONS+6, 35$                      ; 1106
        04     0000G  CF            02  E1 00293          BBC     #2, STORED_CONTEXT, 36$                       ; 1107
                              0249  CA  94 00299 35$:     CLRB    PROTO_VCB+73                                  ; 1108
                023E  CA     0000G  CF  B0 0029D 36$:     MOVW    HOME_BLOCK+70, PROTO_VCB+62                   ; 1110
                                    05  12 002A4          BNEQ    37$                                           ; 1111
                023E  CA            05  B0 002A6          MOVW    #5, PROTO_VCB+62                              ; 1112
                                02  AB  95 002AB 37$:     TSTB    MOUNT_OPTIONS+2                               ; 1113
                                    07  18 002AE          BGEQ    38$
                023E  CA     0000G  CF  B0 002B0          MOVW    EXTENSION, PROTO_VCB+62                       ; 1114
                0238  CA     0000G  CF  90 002B7 38$:     MOVB    HOME_BLOCK+32, PROTO_VCB+56                   ; 1116
                00FF  8F     0000G  CF  B1 002BE          CMPW    HOME_BLOCK+32, #255                           ; 1117
                                    0C  1B 002C5          BLEQU   39$
                      7E      08C0  8F  3C 002C7          MOVZWL  #2240, -(SP)                                  ; 1118
           00000000G  00            01  FB 002CC          CALLS   #1, LIB$STOP
                0244  CA     0000G  CF  D0 002D3 39$:     MOVL    HOME_BLOCK+28, PROTO_VCB+68                   ; 1120
            000FF000  8F     0000G  CF  D1 002DA          CMPL    HOME_BLOCK+28, #1044480                       ; 1121
                                    0C  1B 002E3          BLEQU   40$
                      7E      08C0  8F  3C 002E5          MOVZWL  #2240, -(SP)                                  ; 1122
           00000000G  00            01  FB 002EA          CALLS   #1, LIB$STOP
                020B  CA            20  88 002F1 40$:     BISB2   #32, PROTO_VCB+11                             ; 1123
                024F  CA     0000G  CF  90 002F6          MOVB    HOME_BLOCK+34, PROTO_VCB+79                   ; 1125
                00FF  8F     0000G  CF  B1 002FD          CMPW    HOME_BLOCK+34, #255                           ; 1126
                                    0C  1B 00304          BLEQU   41$
                      7E      08C0  8F  3C 00306          MOVZWL  #2240, -(SP)                                  ; 1127
           00000000G  00            01  FB 0030B          CALLS   #1, LIB$STOP
        06        05  AB            06  E0 00312 41$:     BBS     #6, MOUNT_OPTIONS+5, 42$                      ; 1129
        05     0000G  CF            02  E1 00317          BBC     #2, STORED_CONTEXT, 43$                       ; 1130
                0253  CA            01  88 0031D 42$:     BISB2   #1, PROTO_VCB+83                              ; 1131
        05        06  AB            04  E1 00322 43$:     BBC     #4, MOUNT_OPTIONS+6, 44$                      ; 1133
                0253  CA            02  88 00327          BISB2   #2, PROTO_VCB+83                              ; 1134
                      01     0000G  CF  D1 0032C 44$:     CMPL    CURRENT_RVN, #1                               ; 1139
                                    09  1A 00331          BGTRU   45$
                0260  CA     0000G  CF  B0 00333          MOVW    QUO_CACHE, PROTO_VCB+96                       ; 1141
                                    04  11 0033A          BRB     46$
                             0000G  CF  D4 0033C 45$:     CLRL    QUO_CACHE                                     ; 1143
026C    CA     0000G  CF            08  28 00340 46$:     MOVC3   #8, HOME_BLOCK+72, PROTO_VCB+108              ; 1145
0274    CA     0000G  CF            08  28 00348          MOVC3   #8, HOME_BLOCK+80, PROTO_VCB+116              ; 1146
                      50      0238  CA  9A 00350          MOVZBL  PROTO_VCB+56, R0                              ; 1152
               0000G  CF      0230 DA40 9E 00355          MOVAB   @PROTO_VCB+48[R0], HEADER_LBN
                                    5A  DD 0035D          PUSHL   R10                                           ; 1153
                             0000G  CF  DD 0035F          PUSHL   HEADER_LBN
               0000G  CF            02  FB 00363          CALLS   #2, READ_BLOCK
                      59            50  D0 00368          MOVL    R0, STATUS
                      0E            59  E9 0036B          BLBC    STATUS, 47$                                   ; 1154
                             0000'  CF  9F 0036E          PUSHAB  P.AAA
                                    5A  DD 00372          PUSHL   R10
               0000G  CF            02  FB 00374          CALLS   #2, CHECK_HEADER2
                      2C            50  E8 00379          BLBS    R0, 48$
               0000G  CF            01  D0 0037C 47$:     MOVL    #1, USER_STATUS                               ; 1157
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MOUDK2                                                          G 1
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                                                                14-Sep-1984 12:45:26     DISK$VMSMASTER:[MOUNT.SRC]MOUDK2.B32;4     (3)

                                020B   CA                18  88 00381         BISB2   #24, PROTO_VCB+11                           ; 1159
                                          00729008       8F  DD 00386         PUSHL   #7507976                                    ; 1160
                            00000000G  00                01  FB 0038C         CALLS   #1, LIB$SIGNAL                              ;
                                0000G  CF     022C       CA  D0 00393         MOVL    PROTO_VCB+44, HEADER_LBN                    ; 1161
                                                         5A  DD 0039A         PUSHL   R10                                         ; 1162
                                             0000G       CF  DD 0039C         PUSHL   HEADER_LBN                                  ;
                                0000G  CF                02  FB 003A0         CALLS   #2, READ_BLOCK                              ;
                                       59                50  D0 003A5         MOVL    R0, STATUS                                  ;
                                       09                59  E8 003A8 48$:    BLBS    STATUS, 49$                                 ; 1164
                                                         59  DD 003AB         PUSHL   STATUS                                      ;
                            00000000G  00                01  FB 003AD         CALLS   #1, LIB$STOP                                ;
                                             0000'       CF  9F 003B4 49$:    PUSHAB  P.AAB                                       ; 1165
                                                         5A  DD 003B8         PUSHL   R10                                         ;
                                0000G  CF                02  FB 003BA         CALLS   #2, CHECK_HEADER2                           ;
                                       0C                50  E8 003BF         BLBS    R0, 50$                                     ;
                                       7E     08E0       8F  3C 003C2         MOVZWL  #2272, -(SP)                                ; 1167
                            00000000G  00                01  FB 003C7         CALLS   #1, LIB$STOP                                ;
    0084   8F            00            6E                00  2C 003CE 50$:    MOVC5   #0, (SP), #0, #180, PROTO_FCB               ; 1169
                                              02EC       CA     003D5                                                         ;
                                0318   CA                01  D0 003D8         MOVL    #1, PROTO_FCB+44                            ; 1170
                                                         5A  DD 003DD         PUSHL   R10                                         ; 1171
                                              02EC       CA  9F 003DF         PUSHAB  PROTO_FCB                                   ;
                                0000G  CF                02  FB 003E3         CALLS   #2, INIT_FCB2                               ;
                                0304   CA 00010001       8F  D0 003E8         MOVL    #65537, PROTO_FCB+24                        ; 1173
           30            00            6E                00  2C 003F1         MOVC5   #0, (SP), #0, #48, PROTO_WCB                ; 1178
                                              03A0       CA     003F6                                                         ;
                                03A8   CA       E4       8F  9B 003F9         MOVZBW  #228, PROTO_WCB+8                           ; 1179
                                03AB   CA                01  88 003FF         BISB2   #1, PROTO_WCB+11                            ; 1180
                                       7E     020E       CA  3C 00404         MOVZWL  PROTO_VCB+14, -(SP)                         ; 1181
                                                         01  DD 00409         PUSHL   #1                                          ;
                                                         03  DD 0040B         PUSHL   #3                                          ;
                                                         5A  DD 0040D         PUSHL   R10                                         ;
                                              03A0       CA  9F 0040F         PUSHAB  PROTO_WCB                                   ;
                                0000G  CF                05  FB 00413         CALLS   #5, TURN_WINDOW2                            ;
                                                         5A  DD 00418         PUSHL   R10                                         ; 1189
                                       50     0238       CA  9A 0041A         MOVZBL  PROTO_VCB+56, R0                            ;
                                       50     0230       CA  C0 0041F         ADDL2   PROTO_VCB+48, R0                            ;
                                                01       A0  9F 00424         PUSHAB  1(R0)                                       ;
                                0000G  CF                02  FB 00427         CALLS   #2, READ_BLOCK                              ;
                                       59                50  D0 0042C         MOVL    R0, STATUS                                  ;
                                       0E                59  E9 0042F         BLBC    STATUS, 51$                                 ; 1190
                                             0000'       CF  9F 00432         PUSHAB  P.AAC                                       ;
                                                         5A  DD 00436         PUSHL   R10                                         ;
                                0000G  CF                02  FB 00438         CALLS   #2, CHECK_HEADER2                           ;
                                       38                50  E8 0043D         BLBS    R0, 55$                                     ;
                         1D     0000G  CF                02  E1 00440 51$:    BBC     #2, STORED_CONTEXT, 54$                     ; 1204
                            00000254   8F                59  D1 00446         CMPL    STATUS, #596                                ; 1206
                                                         07  12 0044D         BNEQ    52$                                         ;
                                       7E     0254       8F  3C 0044F         MOVZWL  #596, -(SP)                                 ; 1208
                                                         06  11 00454         BRB     53$                                         ;
                                          00729010       8F  DD 00456 52$:    PUSHL   #7507984                                    ; 1210
                            00000000G  00                01  FB 0045C 53$:    CALLS   #1, LIB$STOP                                ;
                                          00729010       8F  DD 00463 54$:    PUSHL   #7507984                                    ; 1212
                            00000000G  00                01  FB 00469         CALLS   #1, LIB$SIGNAL                              ;
                                020B   CA                10  88 00470         BISB2   #16, PROTO_VCB+11                           ; 1213
                                                       0395  31 00475         BRW     104$                                        ; 1190
                                       50       01       AA  9A 00478 55$:    MOVZBL  BUFFER+1, R0                                ; 1218
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                                        58         6A40   3E 0047C         MOVAW   BUFFER[R0], MAP_POINTER                      ;
                                                  0000G   30 00480         BSBW    GET_MAP_POINTER                              ; 1219
                                        50     023C  CA   3C 00483         MOVZWL  PROTO_VCB+60, R0                             ; 1220
                                        50    0000G  CF   C0 00488         ADDL2   DEVICE_CHAR+112, R0                          ;
                                                     50   D7 0048D         DECL    R0                                           ;
                                        51     023C  CA   3C 0048F         MOVZWL  PROTO_VCB+60, R1                             ; 1221
                                        50           51   C6 00494         DIVL2   R1, R0                                       ;
                                        50     0FFF  C0   9E 00497         MOVAB   4095(R0), R0                                 ; 1220
                          56            50 00001000  8F   C7 0049C         DIVL3   #4096, R0, COUNT                             ; 1221
                            000000FF    8F           56   D1 004A4         CMPL    COUNT, #255                                  ; 1222
                                                     0C   1B 004AB         BLEQU   56$                                          ;
                                        7E     08C0  8F   3C 004AD         MOVZWL  #2240, -(SP)                                 ; 1223
                            00000000G   00           01   FB 004B2         CALLS   #1, LIB$STOP                                 ;
                                 0234   CA       01  A7   9E 004B9 56$:    MOVAB   1(R7), PROTO_VCB+52                          ; 1225
                                 0239   CA           56   90 004BF         MOVB    COUNT, PROTO_VCB+57                          ; 1226
                                               0480  8F   BB 004C4         PUSHR   #^M<R7,R10>                                  ; 1234
                                0000G   CF           02   FB 004C8         CALLS   #2, READ_BLOCK                               ;
                                        59           50   D0 004CD         MOVL    R0, STATUS                                   ;
                                        28           59   E8 004D0         BLBS    STATUS, 58$                                  ; 1235
                            00000254    8F           59   D1 004D3         CMPL    STATUS, #596                                 ; 1240
                                                     0E   12 004DA         BNEQ    57$                                          ;
                                        7E     0254  8F   3C 004DC         MOVZWL  #596, -(SP)                                  ; 1242
                            00000000G   00           01   FB 004E1         CALLS   #1, LIB$STOP                                 ;
                                                     11   11 004E8         BRB     58$                                          ;
                                                     59   DD 004EA 57$:    PUSHL   STATUS                                       ; 1244
                                                     7E   D4 004EC         CLRL    -(SP)                                        ;
                                           00729020  8F   DD 004EE         PUSHL   #7508000                                     ;
                            00000000G   00           03   FB 004F4         CALLS   #3, LIB$STOP                                 ;
                                        12       18  AA   E9 004FB 58$:    BLBC    BUFFER+24, 59$                               ; 1246
                                           00729040  8F   DD 004FF         PUSHL   #7508032                                     ; 1249
                            00000000G   00           01   FB 00505         CALLS   #1, LIB$SIGNAL                               ;
                                 020B   CA           10   88 0050C         BISB2   #16, PROTO_VCB+11                            ; 1250
                                0000G   CF           00   FB 00511 59$:    CALLS   #0, GET_VOLUME_LOCK_NAME                     ; 1256
                                              0000G  CF   D4 00516         CLRL    VOLOCK_COUNT                                 ; 1258
                          3A    0000G   CF           02   E1 0051A         BBC     #2, STORED_CONTEXT, 61$                      ; 1260
                                                     7E   D4 00520         CLRL    -(SP)                                        ; 1263
                                                     5E   DD 00522         PUSHL   SP                                           ;
                                              0000G  CF   9F 00524         PUSHAB  GET_VOLUME_LOCK                              ;
                            00000000G   9F           03   FB 00528         CALLS   #3, @#SYS$CMKRNL                             ;
                                        59           50   D0 0052F         MOVL    R0, STATUS                                   ;
                                        09           59   E8 00532         BLBS    STATUS, 60$                                  ;
                                                     59   DD 00535         PUSHL   STATUS                                       ; 1265
                            00000000G   00           01   FB 00537         CALLS   #1, LIB$STOP                                 ;
                                              0000G  CF   D7 0053E 60$:    DECL    VOLOCK_COUNT                                 ; 1267
                          50    0000G   CF    0000G  CF   8D 00542         XORB3   DEV_CTX, VOL_CTX, R0                         ; 1269
                                        0D           50   E9 0054A         BLBC    R0, 61$                                      ;
                                           007280B4  8F   DD 0054D         PUSHL   #7504052                                     ; 1271
                            00000000G   00           01   FB 00553         CALLS   #1, LIB$STOP                                 ;
                  0290    CA       2E   AA           08   28 0055A 61$:    MOVC3   #8, BUFFER+46, PROTO_VCB+144                 ; 1275
                          03     020B   CA           04   E1 00561         BBC     #4, PROTO_VCB+11, 63$                        ; 1277
                                                   00F3   31 00567 62$:    BRW     78$                                          ;
                          F8       01   AB           01   E1 0056A 63$:    BBC     #1, MOUNT_OPTIONS+1, 62$                     ; 1278
                                        11    0000G  CF   E8 0056F         BLBS    DEV_CTX, 64$                                 ; 1282
                    22    AA     0280   CA           0C   28 00574         MOVC3   #12, PROTO_VCB+128, BUFFER+34                ; 1285
                                                 2E  AA   9F 0057B         PUSHAB  BUFFER+46                                    ; 1286
                            00000000G   00           01   FB 0057E         CALLS   #1, SYS$GETTIM                               ;
    0000G  CF       20    AA            10           00   ED 00585 64$:    CMPZV   #0, #16, BUFFER+32, VOLOCK_COUNT             ; 1289
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                                          0B  13 0058D       BEQL    65$                                ;
            1C        AA        18        AA  C8 0058F       BISL2   BUFFER+24, BUFFER+28               ; 1305
            20        AA     0000G        CF  B0 00594       MOVW    VOLOCK_COUNT, BUFFER+32            ; 1306
     05     1C        AA                  01  E0 0059A 65$:  BBS     #1, BUFFER+28, 66$                 ; 1309
     05     1C        AA                  02  E1 0059F       BBC     #2, BUFFER+28, 67$                 ;
          0000G       CF                  02  88 005A4 66$:  BISB2   #2, CLEANUP_FLAGS+1                ; 1311
     13     1C        AA                  03  E1 005A9 67$:  BBC     #3, BUFFER+28, 68$                 ; 1313
                      01     0000G        CF  D1 005AE       CMPL    CURRENT_RVN, #1                    ; 1314
                                          0C  1A 005B3       BGTRU   68$                                ;
     08     05        AB                  02  E0 005B5       BBS     #2, MOUNT_OPTIONS+5, 69$           ; 1317
          0000G       CF                  04  88 005BA       BISB2   #4, CLEANUP_FLAGS+1                ; 1319
                                          04  11 005BF       BRB     69$                                ; 1313
            1C        AA                  08  8A 005C1 68$:  BICB2   #8, BUFFER+28                      ; 1322
                                20        AA  B6 005C5 69$:  INCW    BUFFER+32                          ; 1324
                             0000G        CF  D5 005C8       TSTL    EXT_CACHE                          ; 1332
                                          04  13 005CC       BEQL    70$                                ;
            18        AA                  02  88 005CE       BISB2   #2, BUFFER+24                      ; 1334
                      01     0000G        CF  D1 005D2 70$:  CMPL    FID_CACHE, #1                      ; 1336
                                          04  13 005D7       BEQL    71$                                ;
            18        AA                  04  88 005D9       BISB2   #4, BUFFER+24                      ; 1338
                             0000G        CF  D5 005DD 71$:  TSTL    QUO_CACHE                          ; 1346
                                          10  13 005E1       BEQL    72$                                ;
                      01     0000G        CF  D1 005E3       CMPL    CURRENT_RVN, #1                    ;
                                          09  1A 005E8       BGTRU   72$                                ;
     04     05        AB                  02  E0 005EA       BBS     #2, MOUNT_OPTIONS+5, 72$           ; 1347
            18        AA                  08  88 005EF       BISB2   #8, BUFFER+24                      ; 1349
                                          5A  DD 005F3 72$:  PUSHL   R10                                ; 1375
          0000G       CF                  01  FB 005F5       CALLS   #1, CHECKSUM                       ;
                              0480        8F  BB 005FA       PUSHR   #^M<R7,R10>                        ; 1376
          0000G       CF                  02  FB 005FE       CALLS   #2, WRITE_BLOCK                    ;
                      59                  50  D0 00603       MOVL    R0, STATUS                         ;
                             0000G        CF  B6 00606       INCW    VOL_CTX+12                         ; 1382
                      09                  59  E9 0060A       BLBC    STATUS, 73$                        ; 1384
0290 CA     2E        AA                  08  28 0060D       MOVC3   #8, BUFFER+46, PROTO_VCB+144       ; 1387
                                          42  11 00614       BRB     77$                                ;
        00000254      8F                  59  D1 00616 73$:  CMPL    STATUS, #596                       ; 1390
                                          0C  12 0061D       BNEQ    74$                                ;
                      7E      0254        8F  3C 0061F       MOVZWL  #596, -(SP)                        ; 1392
        00000000G     00                  01  FB 00624       CALLS   #1, LIB$STOP                       ;
        0000025C      8F                  59  D1 0062B 74$:  CMPL    STATUS, #604                       ; 1393
                                          0F  12 00632       BNEQ    75$                                ;
                          0072A013        8F  DD 00634       PUSHL   #7512083                           ; 1394
        00000000G     00                  01  FB 0063A       CALLS   #1, LIB$SIGNAL                     ;
                                          11  11 00641       BRB     76$                                ;
                                          59  DD 00643 75$:  PUSHL   STATUS                             ; 1395
                                          7E  D4 00645       CLRL    -(SP)                              ;
                          00729048        8F  DD 00647       PUSHL   #7508040                           ;
        00000000G     00                  03  FB 0064D       CALLS   #3, LIB$SIGNAL                     ;
            01        AB                  02  8A 00654 76$:  BICB2   #2, MOUNT_OPTIONS+1                ; 1396
          0000G       CF                  10  88 00658 77$:  BISB2   #16, CLEANUP_FLAGS+1               ; 1399
                      05     0000G        CF  E9 0065D 78$:  BLBC    DEV_CTX, 79$                       ; 1411
          0000G       CF                  00  FB 00662       CALLS   #0, CHECK_CLUSTER_SANITY           ; 1413
                      09     0000G        CF  E9 00667 79$:  BLBC    VOL_CTX, 80$                       ; 1424
          0328        CA     0000G        CF  D0 0066C       MOVL    VOL_CTX+8, PROTO_FCB+60            ; 1426
                                          7A  11 00673       BRB     86$                                ;
                      53      0238        CA  9A 00675 80$:  MOVZBL  PROTO_VCB+56, J                    ; 1430
                                          78  11 0067A       BRB     88$                                ;
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                                                          J  1
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                                          5A  DD 0067C 81$:    PUSHL   R10                                 ; 1434
                              0230 DA43   9F 0067E             PUSHAB  @PROTO_VCB+48[J]                    ;
                0000G  CF           02  FB 00683             CALLS   #2, READ_BLOCK                      ;
                       59           50  D0 00688             MOVL    R0, STATUS                          ;
                       31           59  E8 0068B             BLBS    STATUS, 84$                         ; 1435
             00000254  8F           59  D1 0068E             CMPL    STATUS, #596                        ; 1438
                       0E           12  00695                BNEQ    82$                                 ;
                       7E     0254  8F  3C 00697             MOVZWL  #596, -(SP)                         ; 1440
            00000000G  00           01  FB 0069C             CALLS   #1, LIB$STOP                        ;
                                    11  11 006A3             BRB     83$                                 ;
                                    59  DD 006A5 82$:        PUSHL   STATUS                              ; 1442
                                    7E  D4 006A7             CLRL    -(SP)                               ;
                          00729018  8F  DD 006A9             PUSHL   #7507992                            ;
            00000000G  00           03  FB 006AF             CALLS   #3, LIB$SIGNAL                      ;
                 020B  CA           10  88 006B6 83$:        BISB2   #16, PROTO_VCB+11                   ; 1443
                                    54  D4 006BB             CLRL    IDX_EOF                             ; 1444
                                    38  11 006BD             BRB     89$                                 ; 1445
                       52       7F  8F  9A 006BF 84$:        MOVZBL  #127, I                             ; 1448
                       51     6A42  D0 006C3 85$:            MOVL    BUFFER[I], R1                       ; 1451
                                    28  13 006C7             BEQL    87$                                 ;
        50             53           0C  78 006C9             ASHL    #12, J, R0                          ; 1454
        55             52           05  78 006CD             ASHL    #5, I, R5                           ;
                       55           50  C0 006D1             ADDL2   R0, R5                              ;
                                    51  DD 006D4             PUSHL   R1                                  ;
                0000G  CF           01  FB 006D6             CALLS   #1, LEFT_ONE                        ;
                       50           55  C0 006DB             ADDL2   R5, R0                              ;
                       51     0238  CA  9A 006DE             MOVZBL  PROTO_VCB+56, R1                    ; 1455
                       51           50  C0 006E3             ADDL2   R0, R1                              ;
                       50     023C  CA  3C 006E6             MOVZWL  PROTO_VCB+60, R0                    ;
                       54     6140  DE 006EB                 MOVAL   (R1)[R0], IDX_EOF                   ;
                                    06  11 006EF 86$:        BRB     89$                                 ; 1456
                       CF           52  F4 006F1 87$:        SOBGEQ  I, 85$                              ; 1448
                       85           53  F4 006F4 88$:        SOBGEQ  J, 81$                              ; 1430
                       50           54  D0 006F7 89$:        MOVL    IDX_EOF, R0                         ; 1462
                 0324  CA           50  D1 006FA             CMPL    R0, PROTO_FCB+56                    ;
                                    05  1B 006FF             BLEQU   90$                                 ;
                       50     0324  CA  D0 00701             MOVL    PROTO_FCB+56, R0                    ;
                       54           50  D0 00706 90$:        MOVL    R0, IDX_EOF                         ;
                 0328  CA           54  D1 00709             CMPL    IDX_EOF, PROTO_FCB+60               ; 1463
                                    0A  1B 0070E             BLEQU   91$                                 ;
                 0328  CA           54  D0 00710             MOVL    IDX_EOF, PROTO_FCB+60               ; 1466
                 024E  CA           06  8E 00715             MNEGB   #6, PROTO_VCB+78                    ; 1467
                0000G  CF     0328  CA  D0 0071A 91$:        MOVL    PROTO_FCB+60, VOL_CTX+8             ; 1470
                       0A    0000G  CF  E9 00721             BLBC    VOL_CTX, 92$                        ; 1475
                 0240  CA    0000G  CF  D0 00726             MOVL    VOL_CTX+4, PROTO_VCB+64             ; 1477
                                  00DD  31 0072D             BRW     104$                                ;
                                    53  D4 00730 92$:        CLRL    FREE                                ; 1481
                                    56  D6 00732             INCL    J                                   ; 1482
                                    77  11 00734             BRB     100$                                ;
                                    57  D6 00736 93$:        INCL    LBN                                 ; 1486
                              0480  8F  BB 00738             PUSHR   #^M<R7,R10>                         ; 1487
                0000G  CF           02  FB 0073C             CALLS   #2, READ_BLOCK                      ;
                       59           50  D0 00741             MOVL    R0, STATUS                          ;
                       2D           59  E8 00744             BLBS    STATUS, 96$                         ; 1488
             00000254  8F           59  D1 00747             CMPL    STATUS, #596                        ; 1491
                                    0E  12 0074E             BNEQ    94$                                 ;
                       7E     0254  8F  3C 00750             MOVZWL  #596, -(SP)                         ; 1493
                 00000000G  00          01  FB 00755          CALLS    #1, LIB$STOP                            ;
                                        11  11 0075C          BRB      95$                                     ;
                                        59  DD 0075E  94$:    PUSHL    STATUS                                  ; 1495
                                        7E  D4 00760          CLRL     -(SP)                                   ;
                           00729020     8F  DD 00762          PUSHL    #7508000                                ;
                 00000000G  00          03  FB 00768          CALLS    #3, LIB$SIGNAL                          ;
                      020B  CA          10  88 0076F  95$:    BISB2    #16, PROTO_VCB+11                       ; 1496
                                        50  D4 00774  96$:    CLRL     I                                       ; 1499
                            55      6A40  D0 00776  97$:    MOVL     BUFFER[I], X                            ; 1501
                                        29  13 0077A          BEQL     99$                                     ; 1502
                                        52  D4 0077C          CLRL     B2                                      ; 1505
                            51      E0  A2  9E 0077E  98$:    MOVAB    -32(B2), R1                             ; 1508
                            51          51  CE 00782          MNEGL    R1, R1                                  ;
      54            55      51          52  EA 00785          FFS      B2, R1, X, B1                           ;
                                        19  13 0078A          BEQL     99$                                     ;
                            51      E0  A4  9E 0078C          MOVAB    -32(B1), R1                             ; 1510
                            51          51  CE 00790          MNEGL    R1, R1                                  ;
      52            55      51          54  EB 00793          FFC      B1, R1, X, B2                           ;
                    51      53          52  C1 00798          ADDL3    B2, FREE, R1                            ; 1511
                    53      51          54  C3 0079C          SUBL3    B1, R1, FREE                            ;
                            20          52  D1 007A0          CMPL     B2, #32                                 ; 1512
                            D9          19 007A3          BLSS     98$                                     ;
                    C9      50 0000007F  8F  F3 007A5  99$:    AOBLEQ   #127, I, 97$                            ; 1499
                            86          56  F5 007AD  100$:   SOBGTR   J, 93$                                  ; 1482
                            50      023C  CA  3C 007B0          MOVZWL   PROTO_VCB+60, R0                        ; 1518
           0240     CA      53          50  C5 007B5          MULL3    R0, FREE, PROTO_VCB+64                  ;
                      0000G CF      0240  CA  D0 007BB          MOVL     PROTO_VCB+64, VOL_CTX+4                 ; 1519
                                        49  11 007C2          BRB      104$                                    ; 1062
                    3B      6B          04  E0 007C4  101$:   BBS      #4, MOUNT_OPTIONS, 103$                 ; 1538
                      0000G CF          00  FB 007C8          CALLS    #0, GET_VOLUME_LOCK_NAME                ; 1541
                                        7E  D4 007CD          CLRL     -(SP)                                   ; 1542
                                        5E  DD 007CF          PUSHL    SP                                      ;
                                0000G   CF  9F 007D1          PUSHAB   GET_VOLUME_LOCK                         ;
                 00000000G  9F          03  FB 007D5          CALLS    #3, @#SYS$CMKRNL                        ;
                            59          50  D0 007DC          MOVL     R0, STATUS                              ;
                            09          59  E8 007DF          BLBS     STATUS, 102$                            ;
                                        59  DD 007E2          PUSHL    STATUS                                  ; 1544
                 00000000G  00          01  FB 007E4          CALLS    #1, LIB$STOP                            ;
                    50    0000G CF  0000G  CF  8D 007EB  102$:   XORB3    DEV_CTX, VOL_CTX, R0                    ; 1545
                            0D          50  E9 007F3          BLBC     R0, 103$                                ;
                           007280B4     8F  DD 007F6          PUSHL    #7504052                                ; 1547
                 00000000G  00          01  FB 007FC          CALLS    #1, LIB$STOP                            ;
                            05    0000G  CF  E9 00803  103$:   BLBC     DEV_CTX, 104$                           ; 1550
                      0000G CF          00  FB 00808          CALLS    #0, CHECK_CLUSTER_SANITY                ; 1552
                    05        06  AB    05  E1 0080D  104$:   BBC      #5, MOUNT_OPTIONS+6, 105$               ; 1562
                      020B  CA          10  8A 00812          BICB2    #16, PROTO_VCB+11                       ; 1563
                                        7E  D4 00817  105$:   CLRL     -(SP)                                   ; 1565
                                        5E  DD 00819          PUSHL    SP                                      ;
                                0000V   CF  9F 0081B          PUSHAB   MAKE_DISK_MOUNT                         ;
                 00000000G  9F          03  FB 0081F          CALLS    #3, @#SYS$CMKRNL                        ;
                            59          50  D0 00826          MOVL     R0, STATUS                              ;
                            32          59  E8 00829          BLBS     STATUS, 108$                            ; 1566
      04            59      03          00  ED 0082C          CMPZV    #0, #3, STATUS, #4                      ; 1569
                                        0B  12 00831          BNEQ     106$                                    ;
                                        59  DD 00833          PUSHL    STATUS                                  ; 1570
                 00000000G  00          01  FB 00835          CALLS    #1, LIB$STOP                            ;
                                        20  11 0083C          BRB      108$                                    ;
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V04-002                                             14-Sep-1984 12:45:26    DISK$VMSMASTER:[MOUNT.SRC]MOUDK2.B32;4  (3)

                         0B      0000'   CF   E9 0083E 106$:   BLBC    IO_STATUS, 107$                     ; 1573
                                         59   DD 00843         PUSHL   STATUS                              ; 1574
             00000000G   00              01   FB 00845         CALLS   #1, LIB$SIGNAL                      ;
                                         10   11 0084C         BRB     108$                                ;
                         7E      0000'   CF   3C 0084E 107$:   MOVZWL  IO_STATUS, -(SP)                    ; 1575
                                         7E   D4 00853         CLRL    -(SP)                               ;
                                         59   DD 00855         PUSHL   STATUS                              ;
             00000000G   00              03   FB 00857         CALLS   #3, LIB$SIGNAL                      ;
                 0000G   CF        40    8F   88 0085E 108$:   BISB2   #64, CLEANUP_FLAGS                  ; 1583
       05                6B              29   E5 00864         BBCC    #41, MOUNT_OPTIONS, 109$            ; 1585
                 0000G   CF              00   FB 00868         CALLS   #0, BIND_VOLUME                     ; 1586
       50        0000G   CF              01   78 0086D 109$:   ASHL    #1, DEVICE_INDEX, R0                ; 1591
                                 0000GCF40    DF 00873         PUSHAL  PHYS_NAME[R0]                       ;
                                 0214    CA   9F 00878         PUSHAB  PROTO_VCB+20                        ;
                                         0C   DD 0087C         PUSHL   #12                                 ;
                                         03   DD 0087E         PUSHL   #3                                  ;
                             0072A003    8F   DD 00880         PUSHL   #7512067                            ;
             00000000G   00              05   FB 00886         CALLS   #5, LIB$SIGNAL                      ;
                         12      0488    CA   E8 0088D         BLBS    CACHE_STATUS, 110$                  ; 1598
       0D          01    AB              03   E0 00892         BBS     #3, MOUNT_OPTIONS+1, 110$           ; 1599
                             0072A08B    8F   DD 00897         PUSHL   #7512203                            ; 1601
             00000000G   00              01   FB 0089D         CALLS   #1, LIB$SIGNAL                      ;
       06        0000G   CF              01   E0 008A4 110$:   BBS     #1, CLEANUP_FLAGS+1, 111$           ; 1610
       23        0000G   CF              02   E1 008AA         BBC     #2, CLEANUP_FLAGS+1, 113$           ;
                                   07    AB   95 008B0 111$:   TSTB    MOUNT_OPTIONS+7                     ; 1612
                                         13   18 008B3         BGEQ    112$                                ;
                             0072A093    8F   DD 008B5         PUSHL   #7512211                            ; 1615
             00000000G   00              01   FB 008BB         CALLS   #1, LIB$SIGNAL                      ;
                 0000G   CF              06   8A 008C2         BICB2   #6, CLEANUP_FLAGS+1                 ; 1617
                                              04 008C7         RET                                         ; 1612
       05        0000G   CF              02   E1 008C8 112$:   BBC     #2, CLEANUP_FLAGS+1, 113$           ; 1620
                 0000G   CF              02   88 008CE         BISB2   #2, CLEANUP_FLAGS+1                 ; 1622
                                              04 008D3 113$:   RET                                         ; 1624
                                            0000 008D4 114$:   .WORD   Save nothing                        ; 0826
                                         7E   D4 008D6         CLRL    -(SP)                               ;
                                         5E   DD 008D8         PUSHL   SP                                  ;
                         7E        04    AC   7D 008DA         MOVQ    4(AP), -(SP)                        ;
                 0000V   CF              03   FB 008DE         CALLS   #3, MOUNT_HANDLER                   ;
                                              04 008E3         RET                                         ;

; Routine Size:  2276 bytes,    Routine Base:  $CODE$ + 0000
```

```
1 ROUTINE MOUNT_HANDLER (SIGNAL, MECHANISM) =
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine is the condition handler for the main disk mount
1 !       code. It undoes any damage done so far and returns the error
1 !       status to the user mode caller.
1 !
1 !
1 ! CALLING SEQUENCE:
1 !       MOUNT_HANDLER (ARG1, ARG2)
1 !
1 ! INPUT PARAMETERS:
1 !       ARG1: address of signal vector
1 !       ARG2: address of mechanism vector
1 !
1 ! IMPLICIT INPUTS:
1 !       global pointers to blocks allocated
1 !
1 ! OUTPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 !       SS$_RESIGNAL
1 !
1 ! SIDE EFFECTS:
1 !       necessary cleanups done
1 !
1 !--
1
2 BEGIN
2
2 MAP
2       SIGNAL          : REF BBLOCK,   ! signal vector
2       MECHANISM       : REF BBLOCK;   ! mechanism vector
2
2 EXTERNAL
2       MOUNT_OPTIONS   : BITVECTOR,    ! command parser options
2       CLEANUP_FLAGS   : BITVECTOR;    ! cleanup action flags
2
2 EXTERNAL ROUTINE
2       CHECKSUM,                       ! compute block checksum
2       LOCK_CLEANUP : NOVALUE,         ! cleanup dev and vol locks.
2       READ_BLOCK,                     ! read a disk block
2       WRITE_BLOCK;                    ! write a disk block
2
2
2 ! Note that cleanup is done if we are unwinding, which occurrs when
2 ! we take an error exit.
2 !
2
3 IF  (.SIGNAL[CHF$L_SIG_NAME] NEQ SS$_UNWIND)
```

```
; 1154          1682  3 AND ((.BBLOCK [SIGNAL [CHF$L_SIG_NAME], STS$V_SEVERITY] EQL STS$K_SEVERE) OR
; 1155          1683  3     (.BBLOCK [SIGNAL [CHF$L_SIG_NAME], STS$V_SEVERITY] EQL STS$K_ERROR))
; 1156          1684  2 THEN
; 1157          1685  3     BEGIN
; 1158          1686  3
; 1159          1687  3 ! Clear the dirty bits in the storage control block if they were set.
;  160          1688  3 !
; 1161          1689  3
; 1162          1690  3     IF .CLEANUP_FLAGS[CLF_CLEANSCB] AND .MOUNT_OPTIONS[OPT_WRITE]
; 1163          1691  3     THEN
; 1164          1692  4         BEGIN
; 1165          1693  4         IF READ_BLOCK (.PROTO_VCB[VCB$L_SBMAPLBN]-1, BUFFER)
; 1166          1694  4         THEN
; 1167          1695  4             IF BUFFER [SCB$W_WRITECNT] NEQ 0
; 1168          1696  4             THEN
; 1169          1697  5                 BEGIN
; 1170          1698  6                 IF (BUFFER [SCB$W_WRITECNT] = .BUFFER [SCB$W_WRITECNT] - 1)
; 1171          1699  5                     EQL 0
; 1172          1700  5                 THEN
; 1173          1701  5                     BUFFER [SCB$L_STATUS] = 0;
; 1174          1702  5
; 1175          1703  5                 CHECKSUM (BUFFER);
; 1176          1704  5                 WRITE_BLOCK (.PROTO_VCB[VCB$L_SBMAPLBN]-1, BUFFER);
; 1177          1705  4                 END;
; 1178          1706  3         END;
; 1179          1707  3
; 1180          1708  3     LOCK_CLEANUP ();
; 1181          1709  3
; 1182          1710  2     END;
; 1183          1711  2
; 1184          1712  2 SS$_RESIGNAL
; 1185          1713  1 END;                                          ! end of routine MOUNT_HANDLER


                                                                  .EXTRN  LOCK_CLEANUP

                                                0004 00000 MOUNT_HANDLER:
                                                                  .WORD   Save R2                              ; 1625
                             52      0000'  CF  9E 00002          MOVAB   BUFFER, R2
                             50        04   AC  D0 00007          MOVL    SIGNAL, R0                           ; 1681
                    00000920 8F        04   A0  D1 0000B          CMPL    4(R0), #2336
                                            5C  13 00013          BEQL    4$
      04        04  A0       03             00  ED 00015          CMPZV   #0, #3, 4(R0), #4                    ; 1682
                                            08  13 0001B          BEQL    1$
      02        04  A0       03             00  ED 0001D          CMPZV   #0, #3, 4(R0), #2                    ; 1683
                                            4C  12 00023          BNEQ    4$
                    41    0000G  CF         04  E1 00025 1$:      BBC     #4, CLEANUP_FLAGS+1, 3$              ; 1690
                    3B    0000G  CF         01  E1 0002B          BBC     #1, MOUNT_OPTIONS+1, 3$
                                            52  DD 00031          PUSHL   R2                                   ; 1693
                    7E    0234   C2         01  C3 00033          SUBL3   #1, PROTO_VCB+52, -(SP)
                          0000G  CF         02  FB 00039          CALLS   #2, READ_BLOCK
                             2B             50  E9 0003E          BLBC    R0, 3$
                             50        20   A2  9E 00041          MOVAB   BUFFER+32, R0                        ; 1695
                             25             13  00045             BEQL    3$
                             50        20   A2  3C 00047          MOVZWL  BUFFER+32, R0                        ; 1698
                                            50  D7 0004B          DECL    R0
```

```
                      20   A2              50  B0 0004D         MOVW     R0, BUFFER+32                              ;
                                           50  D5 00051         TSTL     R0                                         ; 1699
                                           03  12 00053         BNEQ     2$                                         ;
                                    18     A2  D4 00055         CLRL     BUFFER+24                                  ; 1701
                                           52  DD 00058 2$:     PUSHL    R2                                         ; 1703
                    0000G  CF              01  FB 0005A         CALLS    #1, CHECKSUM                               ;
                                           52  DD 0005F         PUSHL    R2                                         ; 1704
               7E   0234   C2              01  C3 00061         SUBL3    #1, PROTO_VCB+52, -(SP)                    ;
                    0000G  CF              02  FB 00067         CALLS    #2, WRITE_BLOCK                            ;
                    0000G  CF              00  FB 0006C 3$:     CALLS    #0, LOCK_CLEANUP                           ; 1708
                           50       0918   8F  3C 00071 4$:     MOVZWL   #2328, R0                                  ; 1713
                                               04 00076         RET                                                 ;

; Routine Size:  119 bytes,    Routine Base:  $CODE$ + 08E4
```

```
1 ROUTINE MAKE_DISK_MOUNT =
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine does all of the data base manipulation needed to get
1 !       a volume actually mounted. It allocates the real VCB, FCB, and
1 !       window, and hooks then all together. It also starts up the ACP
1 !       gets the mounted volume list entry made.
1 !
1 !
1 ! CALLING SEQUENCE:
1 !       MAKE_DISK_MOUNT ()
1 !
1 ! INPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT INPUTS:
1 !       MOUNT parser data base
1 !       own storage of this module
1 !
1 ! OUTPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 !       1 if successful
1 !       status values if not
1 !
1 ! SIDE EFFECTS:
1 !       volume mounted
1 !
1 !--
1
2 BEGIN
2
2 BUILTIN
2       INSQUE;
2
2 LOCAL
2       WINDOW_SIZE,                    ! size in bytes needed for window
2       UCB             : REF BBLOCK,   ! pointer to volume UCB
2       ORB             : REF BBLOCK,   ! Pointer to device ORB
2       VCB             : REF BBLOCK,   ! pointer to volume VCB
2       RVT             : REF BBLOCK,   ! pointer to volume set RVT
2       SYS_STATUS,                     ! system service status
2       STATUS,                         ! general status value
2       NOWRITE,                        ! state of volume set write lock
2       ERASE,                          ! state of volume erase-on-delete
2       NOHIGHWATER,                    ! state of volume file-highwater-marking
2       MOUNTVER,                       ! state of volume set mount verification
2       LOCKED;                         ! state of volume set allocation lock
2
2 EXTERNAL
```

```
                DEV_CTX           : BBLOCK FIELD (DC), ! device context
                VLSETLCK_CTX      : BBLOCK FIELD (VC), ! volume set lock context
                VOL_CTX           : BBLOCK FIELD (VC), ! volume lock context
                MOUNT_OPTIONS     : BITVECTOR,       ! command parser options
                STORED_CONTEXT    : BITVECTOR,       ! looks at xqp flag
                CLEANUP_FLAGS     : BITVECTOR,       ! cleanup action flags
                DEVICE_COUNT,                        ! number of devices specified
                CHANNEL,                             ! channel assigned to device
                STRUCT_NAME       : VECTOR,          ! descriptor of volume set name
                HOME_BLOCK        : BBLOCK,          ! buffer containing home block
                OWNER_UIC,                           ! owner UIC from command
                PROTECTION,                          ! volume protection from command
                EXT_CACHE,                           ! size of extent cache to allocate
                FID_CACHE,                           ! size of file ID cache to allocate
                QUO_CACHE,                           ! size of quota file cache to allocate
                EXT_LIMIT,                           ! limit of volume space to cache
                CURRENT_RVN,                         ! RVN of disk being mounted
                REAL_VCB          : REF BBLOCK,      ! address of VCB allocated
                REAL_VCA          : REF BBLOCK,      ! address of volume cache allocated
                REAL_FCB          : REF BBLOCK,      ! address of FCB allocated
                REAL_WCB          : REF BBLOCK,      ! address of window allocated
                MTL_ENTRY         : REF BBLOCK,      ! address of mount list entry
                SMTL_ENTRY        : REF BBLOCK,      ! address of mount list entry for volume set
                CTL$GL_VOLUMES    : ADDRESSING_MODE (ABSOLUTE);
                                                     ! count of volumes mounted by process

        EXTERNAL ROUTINE
                GET_VOLSET_LOCK,                     ! get cluster lock for volume set.
                STORE_CONTEXT,                       ! write appropriate value blocks.
                GET_CHANNELUCB,                      ! get UCB assigned to channel
                ALLOCATE_MEM,                        ! allocate system dynamic memory
                START_ACP,                           ! start and connect ACP to device
                LOCK_IODB         : ADDRESSING_MODE (GENERAL), ! lock I/O database mutex
                UNLOCK_IODB       : ADDRESSING_MODE (GENERAL), ! unlock I/O database mutex
                ENTER_RVT,                           ! attach to relative volume table
                ALLOC_LOGNAME,                       ! create logical name and MTL blocks
                ENTER_LOGNAME,                       ! enter logical name and MTL in lists
                SEND_ERRLOG;                         ! send message to error logger


        ! Allocate all of the required control blocks. We allocate them in
        ! advance to avoid having to back out of some awkward situations later on.
        ! The one exception is the AQB, which is either found or allocated by
        ! START_ACP.
        !

        ENABLE KERNEL_HANDLER;

        REAL_VCB = ALLOCATE_MEM (VCB$C_LENGTH, 0);
        REAL_VCB[VCB$B_TYPE] = DYN$C_VCB;
        CH$MOVE (VCB$C_LENGTH-11, PROTO_VCB+11, .REAL_VCB+11);
        UCB = GET_CHANNELUCB (.CHANNEL);
        ORB = .UCB[UCB$L_ORB];
        RVT = 0;

        IF NOT .MOUNT_OPTIONS[OPT_FOREIGN]
        THEN
```

```
    BEGIN
    LOCAL       FCB_ORB : REF BBLOCK;

    REAL_VCB[VCB$L_FCBFL] = REAL_VCB[VCB$L_FCBFL];
    REAL_VCB[VCB$L_FCBBL] = REAL_VCB[VCB$L_FCBFL];

    REAL_FCB = ALLOCATE_MEM (FCB$C_LENGTH, 0);
    REAL_FCB[FCB$B_TYPE] = DYN$C_FCB;
    CH$MOVE (FCB$C_LENGTH-11, PROTO_FCB+11, .REAL_FCB+11),
    REAL_FCB[FCB$L_WLFL] = REAL_FCB[FCB$L_WLFL];
    REAL_FCB[FCB$L_WLBL] = REAL_FCB[FCB$L_WLFL];

    FCB_ORB = REAL_FCB[FCB$R_ORB];
    FCB_ORB[ORB$V_ACL_QUEUE] = 0;
    FCB_ORB[ORB$L_ACL_COUNT] = 0;
    FCB_ORB[ORB$L_ACL_DESC] = 0;
    INSQUE (.REAL_FCB, REAL_VCB[VCB$L_FCBFL]);

    WINDOW_SIZE = WCB$C_LENGTH + MAXU (.PROTO_WCB[WCB$W_NMAP] + 2, 6) * 6;
    REAL_WCB = ALLOCATE_MEM (.WINDOW_SIZE, 0);
    REAL_WCB[WCB$B_TYPE] = DYN$C_WCB;
    CH$MOVE (.WINDOW_SIZE-11, PROTO_WCB+11, .REAL_WCB+11);
    REAL_WCB[WCB$L_FCB] = .REAL_FCB;
    INSQUE (.REAL_WCB, REAL_FCB[FCB$L_WLFL]);

! Allocate the cache block for the volume, computing the size from the cache
! parameters.
!

    REAL_VCA = ALLOCATE_MEM (VCA$C_LENGTH
                            + $BYTEOFFSET (VCA$L_FIDLIST) + .FID_CACHE * 4
                            + $BYTEOFFSET (VCA$Q_EXTLIST) + .EXT_CACHE * 8,
                            0);
    REAL_VCB[VCB$L_CACHE] = .REAL_VCA;
    REAL_VCA[VCA$B_TYPE] = DYN$C_VCA;
    REAL_VCA[VCA$L_FIDCACHE] = .REAL_VCA + VCA$C_LENGTH;
    REAL_VCA[VCA$L_EXTCACHE] = .REAL_VCA + VCA$C_LENGTH
                            + $BYTEOFFSET (VCA$L_FIDLIST) + .FID_CACHE * 4;
    BBLOCK [.REAL_VCA[VCA$L_FIDCACHE], VCA$W_FIDSIZE] = .FID_CACHE;
    BBLOCK [.REAL_VCA[VCA$L_EXTCACHE], VCA$W_EXTSIZE] = .EXT_CACHE;
    BBLOCK [.REAL_VCA[VCA$L_EXTCACHE], VCA$W_EXTLIMIT] = .EXT_LIMIT,
    BBLOCK [BBLOCK [.REAL_VCA[VCA$L_FIDCACHE], VCA$B_FIDCACB], ACB$B_RMOD] =
        PSL$C_KERNEL + ACB$M_NODELETE;
    BBLOCK [BBLOCK [.REAL_VCA[VCA$L_EXTCACHE], VCA$B_EXTCACB], ACB$B_RMOD] =
        PSL$C_KERNEL + ACB$M_NODELETE;
    REAL_VCB[VCB$W_QUOSIZE] = .QUO_CACHE;

! If this volume is part of a volume set, attach it to the RVT for the set,
! creating one if it doesn't exist.
!

    REAL_VCB[VCB$L_RVT] = .UCB;

    IF .HOME_BLOCK[HM2$W_RVN] NEQ 0 OR .MOUNT_OPTIONS[OPT_BIND]
    THEN
        BEGIN
        RVT = ENTER_RVT (STRUCT_NAME[0], .UCB);
```

```
4            REAL_VCB[VCB$L_RVT] = .RVT;
4            REAL_WCB[WCB$L_RVT] = .RVT;
4            CURRENT_RVN = .HOME_BLOCK[HM2$W_RVN];
4            REAL_FCB[FCB$W_FID_RVN] = .HOME_BLOCK[HM2$W_RVN];
4            (REAL_FCB[FCB$L_LOCKBASIS])<24,8> = .REAL_FCB[FCB$B_FID_RVN];
4            REAL_VCB[VCB$W_RVN] = .HOME_BLOCK[HM2$W_RVN];
4
4  ! Take out the volume set lock.  Also check for cluster uniqueness
4  ! of the volume set structure name.  Note that this
4  ! test is based on whether or not this is (or is not) the first instance
4  ! of this device being mounted and the lock for the volume set being created.
4  ! A given volume set must always be mounted in the same order on
4  ! different nodes in the cluster.  If, for example, RVN 2 was mounted
4  ! first on node A, then if node B mounts RVN 1 next, it will fail because
4  ! the volume set lock already exists, even though it is the first mount
4  ! on the RVN 1 device.
4  !
4
4            IF .RVT [RVT$L_STRUCLKID] EQL 0
4            THEN
5                BEGIN
5                GET_VOLSET_LOCK();
5
5                IF .STORED_CONTEXT [XQP]
5                THEN
5                    IF .DEV_CTX [DC_NOTFIRST_MNT] NEQ .VLSETLCK_CTX [VC_NOTFIRST_MNT]
5                    THEN
5                        ERR_EXIT (MOUN$_VOLINSET);
4                END;
4
3            END;
2        END;
2
2  ! Now allocate space for logical name and mounted volume list entries.
2  ! If this is volume 1 of a set, we allocate 2 - one for the volume as usual
2  ! and one for the set. If a logical name is given in the command, it is assigned
2  ! to volume 1 of the set, or if only one volume is being mounted, to it.
2  ! Otherwise, the logical name is constructed from the volume label.
2  !
2
2  IF NOT .MOUNT_OPTIONS[OPT_FOREIGN] AND .HOME_BLOCK[HM2$W_RVN] EQL 1
2  THEN
3      BEGIN
3      ALLOC_LOGNAME (0);
3      SMTL_ENTRY = .MTL_ENTRY;            ! copy reserved entry to entry for set
3      MTL_ENTRY = 0;
3      ALLOC_LOGNAME (1);
3      END
3
2  ELSE
3      BEGIN
3      IF .DEVICE_COUNT EQL 1
3      THEN ALLOC_LOGNAME (0)
3      ELSE ALLOC_LOGNAME (1);
2      END;
2
2  ! All data blocks except the AQB are now allocated. First set up the
```

```
  2 ! volume ownership and protection in the VCB. Now hook up the blocks
  2 ! to the device data base and start the ACP.
  2 !
  2
  2 UCB[UCB$V_UNLOAD] = NOT .MOUNT_OPTIONS [OPT_NOUNLOAD];
  2 ORB[ORB$L_OWNER] = .VOLUME_UIC;
  2 IF .MOUNT_OPTIONS[OPT_OWNER_UIC]
  2 THEN ORB[ORB$L_OWNER] = .OWNER_UIC;
  2
  2 ORB[ORB$V_PROT_16] = 1;                          ! SOGW protection word
  2 IF .MOUNT_OPTIONS[OPT_FOREIGN]
  2 THEN ORB[ORB$W_PROT] = %X'FF00'
  2 ELSE ORB[ORB$W_PROT] = .HOME_BLOCK[HM2$W_PROTECT];
  2 IF .MOUNT_OPTIONS[OPT_PROTECTION]
  2 THEN ORB[ORB$W_PROT] = .PROTECTION;
  2
  2 STATUS = 1;
  2 IF NOT .MOUNT_OPTIONS[OPT_FOREIGN]
  2 THEN
  3     BEGIN
  3     REAL_VCB [VCB$V_MOUNTVER] = .MOUNT_OPTIONS [OPT_MOUNTVER];
  3     REAL_WCB[WCB$L_ORGUCB] = .UCB;
  3     START_ACP (.UCB, .REAL_VCB, AQB$K_F11V2);
  3
  3 ! Store value blocks of device and volume locks, as appropriate.
  3 !
  3
  3     STORE_CONTEXT ();
  3
  3 ! Unless the disk is being mounted /NOQUOTA or is write locked, attempt
  3 ! to connect the quota file if the RVN is 0 or 1. If it fails with no such
  3 ! file, then proceed; else lock the volume.
  3 !
  3
  3     IF NOT .MOUNT_OPTIONS[OPT_NOQUOTA]
  3     AND .REAL_VCB[VCB$W_RVN] LEQU 1
  3     AND NOT .REAL_VCB[VCB$V_NOALLOC]
  3     AND .MOUNT_OPTIONS[OPT_WRITE]
  3     THEN
  4         BEGIN
  4         PSECT   PLIT = $OWN$;           ! ACP argument blocks must be writable
  4
P 4         SYS_STATUS = DO_IO (
P 4                 EFN  = MOUNT_EFN,
P 4                 CHAN = .CHANNEL,
P 4                 FUNC = IO$_ACPCONTROL,
P 4                 IOSB = IO_STATUS[0],
P 4                 P1   = UPLIT (FIB$C_MTALEN,
P 4                             UPLIT (0, WORD (0, 0, 0), WORD (4, 4, 0), 0,
P 4                                     WORD (0, FIB$C_ENA_QUOTA), 0)),
P 4                 P2   = DESCRIPTOR ('QUOTA.SYS;1')
  4                 );
  4         IF NOT .SYS_STATUS THEN IO_STATUS = .SYS_STATUS;
  4
  4         IF NOT .IO_STATUS[0]
  4         THEN
  5             BEGIN
```

```
5
5 ! CLF_REBUILDQUO was set in MOUNT_DISK2 'f the QUODIRTY2 flag was
5 ! set in the SCB, indicating that the disk was improperly dismounted
5 ! sometime in the past when quota caching was enabled.  However, if
5 ! we failed to enable q-otas here for whatever reason (normally just
5 ! failure to find a quota file), clear the flag now so that quota
5 ! rebuild is not attempted.
5 !
5
5           CLEANUP_FLAGS [CLF_REBUILDQUO] = 0;
5
5           IF .IO_STATUS[0] NEQ SS$_NOSUCHFILE
5           THEN
6               BEGIN
6               REAL_VCB[VCB$V_NOALLOC] = 1;
6               STATUS = MOUN$_QUOTAFAIL;
5               END;
4           END;
3       END;
3   END
3
3 ! Do /FOREIGN processing if requested.
3 !
3
2 ELSE
3   BEGIN
3
3 ! Store value blocks of device and volume locks, as appropriate.
3 !
3
3   STORE_CONTEXT ();
3
3   LOCK_IODB ();
3   UCB[UCB$L_VCB] = .REAL_VCB;
3   UCB[UCB$L_DEVCHAR] = .UCB[UCB$L_DEVCHAR]
3                       OR (DEV$M_MNT OR DEV$M_DIR OR DEV$M_FOR);
3   SET_DATACHECK (.UCB, 0);
3   UNLOCK_IODB ();
2   END;
2
2 IF .MOUNT_OPTIONS[OPT_NOSHARE] AND .CLEANUP_FLAGS[CLF_DEALLOCATE]
2 THEN UCB[UCB$V_DEADMO] = 1;
2
2 IF NOT .MOUNT_OPTIONS[OPT_WRITE]
2 THEN BBLOCK [UCB[UCB$L_DEVCHAR], DEV$V_SWL] = 1;
2
2 ! Enter the logical name for the volume; bump the user's volume mount count,
2 ! and make the error log entry for the mount.
2 !
2
2 ENTER_LOGNAME (.UCB, .REAL_VCB);
2 CTL$GL_VOLUMES = .CTL$GL_VOLUMES + 1;
2 SEND_ERRLOG (1, .UCB);
2
2 ! If any volume in the set is mounted /NOWRITE or is locked due to an error,
2 ! the entire volume set must be similarly locked to prevent random behavior.
2 ! Scan the RVT and process all volumes in the set. Also inhibit disk rebuild
```

```
2 ! if the volumes are locked.
2 !
2
2 NOWRITE = .BBLOCK [UCB[UCB$L_DEVCHAR], DEV$V_SWL];
2 LOCKED = .REAL_VCB[VCB$V_NOALLOC];
2 MOUNTVER = .REAL_VCB[VCB$V_MOUNTVER];
2 ERASE = .REAL_VCB[VCB$V_ERASE];
2 NOHIGHWATER = .REAL_VCB[VCB$V_NOHIGHWATER];
2
2 IF .RVT NEQ 0
2 THEN
3     BEGIN
3     LOCK_IODB ();
3
3     INCR J FROM 1 TO .RVT[RVT$B_NVOLS]
3     DO
4         BEGIN
4
4         LOCAL
4             RVUCB       : REF BBLOCK;
4
4         RVUCB = .VECTOR [RVT[RVT$L_UCBLST], .J-1];
4         IF .RVUCB NEQ 0
4         THEN
5             BEGIN
5             IF .NOWRITE
5             THEN BBLOCK [RVUCB[UCB$L_DEVCHAR], DEV$V_SWL] = 1;
5             NOWRITE = .BBLOCK [RVUCB[UCB$L_DEVCHAR], DEV$V_SWL];
5
5             VCB = .RVUCB[UCB$L_VCB];
5             IF .LOCKED
5             THEN VCB[VCB$V_NOALLOC] = 1;
5             LOCKED = .VCB[VCB$V_NOALLOC];
5
5             IF .MOUNTVER
5             THEN VCB[VCB$V_MOUNTVER] = 1;
5             MOUNTVER = .VCB[VCB$V_MOUNTVER];
5
5             IF .ERASE
5             THEN VCB[VCB$V_ERASE] = 1;
5             ERASE = .VCB[VCB$V_ERASE];
5
5             IF .NOHIGHWATER
5             THEN VCB[VCB$V_NOHIGHWATER] = 1;
5             NOHIGHWATER = .VCB[VCB$V_NOHIGHWATER];
4             END;
3         END;
3     UNLOCK_IODB ();
2     END;
2
2 IF .LOCKED OR .NOWRITE
2 THEN CLEANUP_FLAGS[CLF_REBUILD] = 0;
2
2 ! Increment the refcount, so that it never goes to zero while the device
2 ! is mounted.
2 ! All subsequent error paths from this point must do a full dismount to
2 ! correctly remove the refcount bias.
```

```
; 1586          2113  2 !
; 1587          2114  2
; 1588          2115  2 UCB[UCB$W_REFC] = .UCB[UCB$W_REFC] + 1;
; 1589          2116  2
; 1590          2117  2 RETURN .STATUS;
; 1591          2118  2
; 1592          2119  1 END;                                    ! end of routine MAKE_DISK_MOUNT


                                                                          .PSECT  $OWN$,NOEXE,2

                                                     00000000  00008 P.AAE:   .LONG   0                                  ;
                                           0000  0000  0000  0000C            .WORD   0, 0, 0                            ;
                                           0000  0004  0004  00012            .WORD   4, 4, 0                            ;
                                                     00000000  00018          .LONG   0                                  ;
                                                 0009  0000  0001C            .WORD   0, 9                               ;
                                                     00000000  00020          .LONG   0                                  ;
                                                     0000001C  00024 P.AAD:   .LONG   28                                 ;
                                                     00000000' 00028          .ADDRESS P.AAE                             ;
            31  3B  53  59  53  2E  41  54  4F  55  51  0002C P.AAG:   .ASCII  \QUOTA.SYS;1\                       ;
                                                               00037          .BLKB   1
                                                     0000000B  00038 P.AAF:   .LONG   11                                 ;
                                                     00000000' 0003C          .ADDRESS P.AAG                             ;

                                                                          .EXTRN  VLSETLCK_CTX, DEVICE_COUNT
                                                                          .EXTRN  CHANNEL, OWNER_UIC
                                                                          .EXTRN  PROTECTION, REAL_VCB
                                                                          .EXTRN  REAL_VCA, REAL_FCB
                                                                          .EXTRN  REAL_WCB, MTL_ENTRY
                                                                          .EXTRN  SMTL_ENTRY, CTL$GL_VOLUMES
                                                                          .EXTRN  GET_VOLSET_LOCK
                                                                           EXTRN  STORE_CONTEXT, GET_CHANNELUCB
                                                                          .EXTRN  ALLOCATE_MEM, START_ACP
                                                                          .EXTRN  LOCK_IODB, UNLOCK_IODB
                                                                          .EXTRN  ENTER_RVT, ALLOC_LOGNAME
                                                                          .EXTRN  ENTER_LOGNAME, SEND_ERRLOG
                                                                          .EXTRN  COMMON_IO

                                                                          .PSECT  $CODE$,NOWRT,2

                                                          0FFC 00000 MAKE_DISK_MOUNT:
                                                                          .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11   ; 1714
                          6D      03B2      CF   DE 00002                 MOVAL   29$, (FP)                          ; 1751
                                            7E   D4 00007                 CLRL    -(SP)                              ; 1819
                          7E        EC      8F   9A 00009                 MOVZBL  #236, -(SP)                        ;
                    0000G CF                02   FB 0000D                 CALLS   #2, ALLOCATE_MEM                   ;
                    0000G CF                50   D0 00012                 MOVL    R0, REAL_VCB                       ;
                       0A A0                11   90 00017                 MOVB    #17, 10(R0)                        ; 1820
            0B   A0 0000' CF      00E1      8F   28 0001B                 MOVC3   #225, PROTO_VCB+11, 11(R0)         ; 1821
                                 0000G      CF   DD 00024                 PUSHL   CHANNEL                            ; 1822
                    0000G CF                01   FB 00028                 CALLS   #1, GET_CHANNELUCB                 ;
                          57                50   D0 0002D                 MOVL    R0, UCB                            ;
                          58        1C      A7   D0 00030                 MOVL    28(UCB), ORB                       ; 1823
                                            59   D4 00034                 CLRL    RVT                                ; 1824
                 03 0000G CF                03   E1 00036                 BBC     #3, MOUNT_OPTIONS+1, 1$            ; 1826
                                          017D   31 0003C                 BRW     5$                                 ;
```

**

```
                                 50       0000G  CF   D0 0003F 1$:      MOVL     REAL_VCB, R0                                          ; 1831
                                 60              50   D0 00044          MOVL     R0, (R0)                                              ;
                          04     A0              50   D0 00047          MOVL     R0, 4(R0)                                             ; 1832
                                                 7E   D4 0004B          CLRL     -(SP)                                                 ; 1834
                                 7E         B4   8F   9A 0004D          MOVZBL   #180, -(SP)                                           ;
                       0000G     CF              02   FB 00051          CALLS    #2, ALLOCATE_MEM                                      ;
                       0000G     CF              50   D0 00056          MOVL     R0, REAL_FCB                                          ;
                                 56       0000G  CF   D0 0005B          MOVL     REAL_FCB, R6                                          ; 1835
                          0A     A6              07   90 00060          MOVB     #7, 10(R6)                                            ;
         0B       A6   0000'     CF       00A9   8F   28 00064          MOVC3    #169, PROTO_FCB+11, 11(R6)                            ; 1836
                          10     A6         10   A6   9E 0006D          MOVAB    16(R6), 16(R6)                                        ; 1837
                          14     A6         10   A6   9E 00072          MOVAB    16(R6), 20(R6)                                        ; 1838
                                 50         58   A6   9E 00077          MOVAB    88(R6), FCB_ORB                                       ; 1840
                          0B     A0              C2   8A 0007B          BICB2    #2, 11(FCB_ORB)                                       ; 1841
                                            28   A0   7C 0007F          CLRQ     40(FCB_ORB)                                           ; 1842
                       0000G     DF              66   0E 00082          INSQUE   (R6), @REAL_VCB                                       ; 1844
                                 52       0000'  CF   3C 00087          MOVZWL   PROTO_WCB+22, R2                                      ; 1846
                                 52              02   C0 0008C          ADDL2    #2, R2                                                ;
                                 06              52   D1 0008F          CMPL     R2, #6                                                ;
                                                 03   1E 00092          BGEQU    2$                                                    ;
                                 52              06   D0 00094          MOVL     #6, R2                                                ;
                                 52              06   C4 00097 2$:      MULL2    #6, R2                                                ;
                                 52              30   C0 0009A          ADDL2    #48, WINDOW_SIZE                                      ;
                                                 7E   D4 0009D          CLRL     -(SP)                                                 ; 1847
                                                 52   DD 0009F          PUSHL    WINDOW_SIZE                                           ;
                       0000G     CF              02   FB 000A1          CALLS    #2, ALLOCATE_MEM                                      ;
                       0000G     CF              50   D0 000A6          MOVL     R0, REAL_WCB                                          ;
                                 56       0000G  CF   D0 000AB          MOVL     REAL_WCB, R6                                          ; 1848
                          0A     A6              12   90 000B0          MOVB     #18, 10(R6)                                           ;
                                 52              0B   C2 000B4          SUBL2    #11, R2                                               ; 1849
         0B       A6   0000'     CF              52   28 000B7          MOVC3    R2, PROTO_WCB+11, 11(R6)                              ;
                          18     A6       0000G  CF   D0 000BE          MOVL     REAL_FCB, 24(R6)                                      ; 1850
                  50   0000G     CF              10   C1 000C4          ADDL3    #16, REAL_FCB, R0                                     ; 1851
                                 60              66   0E 000CA          INSQUE   (R6), (R0)                                            ;
                                                 7E   D4 000CD          CLRL     -(SP)                                                 ; 1857
                                 50       0000G  CF   D0 000CF          MOVL     FID_CACHE, R0                                         ; 1858
                  51   0000G     CF              03   78 000D4          ASHL     #3, EXT_CACHE, R1                                     ; 1859
                                         5C A140  DF 000DA          PUSHAL   92(R1)[R0]                                            ;
                       0000G     CF              02   FB 000DE          CALLS    #2, ALLOCATE_MEM                                      ;
                       0000G     CF              50   D0 000E3          MOVL     R0, REAL_VCA                                          ;
                                 52       0000G  CF   D0 000E8          MOVL     REAL_VCB, R2                                          ; 1861
                                 50       0000G  CF   D0 000ED          MOVL     REAL_VCA, R0                                          ;
                          58     A2              50   D0 000F2          MOVL     R0, 88(R2)                                            ;
                          0A     A0              32   90 000F6          MOVB     #50, 10(R0)                                           ; 1862
                                 60         0C   A0   9E 000FA          MOVAB    12(R0), (R0)                                          ; 1863
                                 51       0000G  CF   D0 000FE          MOVL     FID_CACHE, R1                                         ; 1865
                          04     A0      30 A041  DE 00103          MOVAL    48(R0)[R1], 4(R0)                                     ;
                          00     B0              51   B0 00109          MOVW     R1, @0(R0)                                            ; 1866
                                 50              60   7D 0010D          MOVQ     (R0), R0                                              ; 1869
                                 61       0000G  CF   B0 00110          MOVW     EXT_CACHE, (R1)                                       ; 1867
                          08     A1       0000G  CF   B0 00115          MOVW     EXT_LIMIT, 8(R1)                                      ; 1868
                          13     A0              20   90 0011B          MOVB     #32, 19(R0)                                           ; 1870
                          1B     A1              20   90 0011F          MOVB     #32, 27(R1)                                           ; 1872
                          60     A2       0000G  CF   B0 00123          MOVW     QUO_CACHE, 96(R2)                                     ; 1873
                          20     A2              57   D0 00129          MOVL     UCB, 32(R2)                                           ; 1879
                                          0000G  CF   B5 0012D          TSTW     HOME_BLOCK+38                                         ; 1881
                                                 05   12 00131          BNEQ     3$                                                    ;
                          63     0000G   CF   E9 00133      BLBC    MOUNT_OPTIONS+5, 4$                          ;
                                         57   DD 00138 3$:  PUSHL   UCB                                          ; 1884
                                 0000G   CF   9F 0013A      PUSHAB  STRUCT_NAME                                  ;
                   0000G  CF             02   FB 0013E      CALLS   #2, ENTER_RVT                                ;
                          59             50   D0 00143      MOVL    R0, RVT                                      ;
                          51     0000G   CF   D0 00146      MOVL    REAL_VCB, R1                                 ; 1885
                      20  A1             59   D0 0014B      MOVL    RVT, 32(R1)                                  ;
                          50     0000G   CF   D0 0014F      MOVL    REAL_WCB, R0                                 ; 1886
                      1C  A0             59   D0 00154      MOVL    RVT, 28(R0)                                  ;
                          52     0000G   CF   3C 00158      MOVZWL  HOME_BLOCK+38, R2                            ; 1887
                   0000G  CF             52   D0 0015D      MOVL    R2, CURRENT_RVN                              ;
                          50     0000G   CF   D0 00162      MOVL    REAL_FCB, R0                                 ; 1888
                      28  A0             52   B0 00167      MOVW    R2, 40(R0)                                   ;
                      4F  A0        28   A0   90 0016B      MOVB    40(R0), 79(R0)                               ; 1889
                      0E  A1             52   B0 00170      MOVW    R2, 14(R1)                                   ; 1890
                                         69   D5 00174      TSTL    (RVT)                                        ; 1903
                                         23   12 00176      BNEQ    4$                                           ;
                   0000G  CF             00   FB 00178      CALLS   #0, GET_VOLSET_LOCK                          ; 1906
              18   0000G  CF             02   E1 0017D      BBC     #2, STORED_CONTEXT, 4$                       ; 1908
              50   0000G  CF     0000G   CF   8D 00183      XORB3   DEV_CTX, V[SETLCK_CTX, R0                    ; 1910
                          0D             50   E9 0018B      BLBC    R0, 4$                                       ;
                             00728194    8F   DD 0018E      PUSHL   #7504276                                     ; 1912
               000000000G 00             01   FB 00194      CALLS   #1, LIB$STOP                                 ;
              1B   0000G  CF             03   E0 0019B 4$:  BBS     #3, MOUNT_OPTIONS+1, 5$                      ; 1925
                          01     0000G   CF   B1 001A1      CMPW    HOME_BLOCK+38, #1                            ;
                                         14   12 001A6      BNEQ    5$                                           ;
                                         7E   D4 001A8      CLRL    -(SP)                                        ; 1928
                   0000G  CF             01   FB 001AA      CALLS   #1, ALLOC_LOGNAME                            ;
                   0000G  CF     0000G   CF   D0 001AF      MOVL    MTL_ENTRY, SMTL_ENTRY                        ; 1929
                                 0000G   CF   D4 001B6      CLRL    MTL_ENTRY                                    ; 1930
                                         0B   11 001BA      BRB     6$                                           ; 1931
                          01     0000G   CF   D1 001BC 5$:  CMPL    DEVICE_COUNT, #1                             ; 1936
                                         04   12 001C1      BNEQ    6$                                           ;
                                         7E   D4 001C3      CLRL    -(SP)                                        ; 1937
                                         02   11 001C5      BRB     7$                                           ;
                                         01   DD 001C7 6$:  PUSHL   #1                                           ; 1938
                   0000G  CF             01   FB 001C9 7$:  CALLS   #1, ALLOC_LOGNAME                            ;
      50     0000G  CF                   01   02 EF 001CE   EXTZV   #2, #1, MOUNT_OPTIONS+1, R0                  ; 1946
                          50             50   D2 001D5      MCOML   R0, R0                                       ;
 65   A7            01                   04   50 F0 001D8   INSV    R0, #4, #1, 101(UCB)                         ;
                          68     0000'   CF   D0 001DE      MOVL    VOLUME_UIC, (ORB)                            ; 1947
              05   0000G  CF             02   E1 001E3      BBC     #2, MOUNT_OPTIONS+2, 8$                      ; 1948
                          68     0000G   CF   D0 001E9      MOVL    OWNER_UIC, (ORB)                             ; 1949
                      0B  A8             01   88 001EE 8$:  BISB2   #1, 11(ORB)                                  ; 1951
              08   0000G  CF             03   E1 001F2      BBC     #3, MOUNT_OPTIONS+1, 9$                      ; 1952
                      18  A8      FF00   8F   B0 001F8      MOVW    #-256, 24(ORB)                               ; 1953
                                         06   11 001FE      BRB     10$                                          ;
                      18  A8     0000G   CF   B0 00200 9$:  MOVW    HOME_BLOCK+52, 24(ORB)                       ; 1954
              06   0000G  CF             01   E1 00206 10$: BBC     #1, MOUNT_OPTIONS+2, 11$                     ; 1955
                      18  A8     0000G   CF   B0 0020C      MOVW    PROTECTION, 24(ORB)                          ; 1956
                          5B             01   D0 00212 11$: MOVL    #1, STATUS                                   ; 1958
              03   0000G  CF             03   E1 00215      BBC     #3, MOUNT_OPTIONS+1, 12$                     ; 1959
                                     009A   31 0021B        BRW     15$                                          ;
                          51     0000G   CF   D0 0021E 12$: MOVL    REAL_VCB, R1                                 ; 1962
      50     0000G  CF                   01   06 EF 00223   EXTZV   #6, #1, MOUNT_OPTIONS+6, R0                  ;
 53   A1            01                   02   50 F0 0022A   INSV    R0, #2, #1, 83(R1)                           ;
                          50     0000G   CF   D0 00230      MOVL    REAL_WCB, R0                                 ; 1963
```

```
                        10   A0            57 D0 00235        MOVL    UCB, 16(R0)                          ;
                                           02 DD 00239        PUSHL   #2                                   ; 1964
                                           51 DD 0023B        PUSHL   R1                                   ;
                                           57 DD 0023D        PUSHL   UCB                                  ;
                     0000G   CF            03 FB 0023F        CALLS   #3, START_ACP                        ;
                     0000G   CF            00 FB 00244        CALLS   #0, STORE_CONTEXT                    ; 1969
                67   0000G   CF            02 E0 00249        BBS     #2, MOUNT_OPTIONS+5, 14$             ; 1976
                             50     0000G  CF D0 0024F        MOVL    REAL_VCB, R0                         ; 1977
                             01        0E  A0 B1 00254        CMPW    14(R0), #1                           ;
                                           5C 1A 00258        BGTRU   14$                                  ;
                             50     0000G  CF D0 0025A        MOVL    REAL_VCB, R0                         ; 1978
                7E      0B   A0            04 E0 0025F        BBS     #4, 11(R0), 16$                      ;
                78   0000G   CF            01 E1 00264        BBC     #1, MOUNT_OPTIONS+1, 16$             ; 1979
                                           7E 7C 0026A        CLRQ    -(SP)                                ; 1993
                                           7E 7C 0026C        CLRQ    -(SP)                                ;
                                    0000'  CF 9F 0026E        PUSHAB  P.AAF                                ;
                                    0000'  CF 9F 00272        PUSHAB  P.AAD                                ;
                                           7E 7C 00276        CLRQ    -(SP)                                ;
                                    0000'  CF 9F 00278        PUSHAB  IO_STATUS                            ;
                                           38 DD 0027C        PUSHL   #56                                  ;
                                    0000G  CF DD 0027E        PUSHL   CHANNEL                              ;
                                           1A DD 00282        PUSHL   #26                                  ;
                 00000000G   00            0C FB 00284        CALLS   #12, COMMON_IO                       ;
                             05            50 E8 0028B        BLBS    SYS_STATUS, 13$                      ; 1994
                     0000'   CF            50 D0 0028E        MOVL    SYS_STATUS, IO_STATUS                ;
                             4A     0000   CF E8 00293  13$:  BLBS    IO_STATUS, 16$                       ; 1996
                     0000G   CF            04 8A 00298        BICB2   #4, CLEANUP_FLAGS+1                  ; 2008
                     0910    8F     0000'  CF B1 0029D        CMPW    IO_STATUS, #2320                     ; 2010
                                           3C 13 002A4        BEQL    16$                                  ;
                             50     0000G  CF D0 002A6        MOVL    REAL_VCB, R0                         ; 2013
                        0B   A0            10 88 002AB        BISB2   #16, 11(R0)                          ;
                             5B 00729038   8F D0 002AF        MOVL    #7508024, STATUS                     ; 2014
                                           2A 11 002B6  14$:  BRB     16$                                  ; 1959
                     0000G   CF            00 FB 002B8  15$:  CALLS   #0, STORE_CONTEXT                    ; 2029
                 00000000G   00            00 FB 002BD        CALLS   #0, LOCK_IODB                        ; 2031
                        34   A7     0000G  CF D0 002C4        MOVL    REAL_VCB, 52(UCB)                    ; 2032
                        38   A7 01080008   8F C8 002CA        BISL2   #17301512, 56(UCB)                   ; 2034
                                           7E D4 002D2        CLRL    -(SP)                                ; 2035
                                           57 DD 002D4        PUSHL   UCB                                  ;
                     0000V   CF            02 FB 002D6        CALLS   #2, SET_DATACHECK                    ;
                 00000000G   00            00 FB 002DB        CALLS   #0, UNLOCK_IODB                      ; 2036
                0A   0000G   CF            04 E1 002E2  16$:  BBC     #4, MOUNT_OPTIONS, 17$               ; 2039
                04   0000G   CF            01 E1 002E8        BBC     #1, CLEANUP_FLAGS, 17$               ;
                        65   A7            04 88 002EE        BISB2   #4, 101(UCB)                         ; 2040
                04   0000G   CF            01 E0 002F2  17$:  BBS     #1, MOUNT_OPTIONS+1, 18$             ; 2042
                        3B   A7            02 88 002F8        BISB2   #2, 59(UCB)                          ; 2043
                                    0000G  CF DD 002FC  18$:  PUSHL   REAL_VCB                             ; 2049
                                           57 DD 00300        PUSHL   UCB                                  ;
                     0000G   CF            02 FB 00302        CALLS   #2, ENTER_LOGNAME                    ;
                                00000000G  9F D6 00307        INCL    @#CTL$GL_VOLUMES                     ; 2050
                                           57 DD 0030D        PUSHL   UCB                                  ; 2051
                                           01 DD 0030F        PUSHL   #1                                   ;
                     0000G   CF            02 FB 00311        CALLS   #2, SEND_ERRLOG                      ;
   55        3B   A7         01            01 EF 00316        EXTZV   #1, #1, 59(UCB), NOWRITE             ; 2059
                             50     0000G  CF D0 0031C        MOVL    REAL_VCB, R0                         ; 2060
   54        0B   A0         01            04 EF 00321        EXTZV   #4, #1, 11(R0), LOCKED               ;
   56        53   A0         01            02 EF 00327        EXTZV   #2, #1, 83(R0), MOUNTVER             ; 2061
```

```
        52      53   A0              01         03  EF 0032D          EXTZV   #3, #1, 83(R0), ERASE                     ; 2062
        58      53   A0              01         04  EF 00333          EXTZV   #4, #1, 83(R0), NOHIGHWATER               ; 2063
                                                59  D5 00339          TSTL    RVT                                       ; 2065
                                                69  13 0033B          BEQL    26$                                       ;
                          00000000G  00         00  FB 0033D          CALLS   #0, LOCK_IODB                             ; 2068
                                     5A    0B   A9  9A 00344          MOVZBL  11(RVT), R10                              ; 2070
                                     53    44   A9  9E 00348          MOVAB   68(RVT), R3                               ; 2077
                                                59  D4 0034C          CLRL    J                                         ;
                                                4B  11 0034E          BRB     25$                                       ;
                                     50  FC A349  D0 00350 19$:       MOVL    -4(R3)[J], RVUCB                          ;
                                                44  13 00355          BEQL    25$                                       ; 2078
                                     04         55  E9 00357          BLBC    NOWRITE, 20$                              ; 2081
                                 3B  A0         02  88 0035A          BISB2   #2, 59(RVUCB)                             ; 2082
        55      3B   A0              01         01  EF 0035E 20$:     EXTZV   #1, #1, 59(RVUCB), NOWRITE                ; 2083
                                     51    34   A0  D0 00364          MOVL    52(RVUCB), VCB                            ; 2085
                                     04         54  E9 00368          BLBC    LOCKED, 21$                               ; 2086
                                 0B  A1         10  88 0036B          BISB2   #16, 11(VCB)                              ; 2087
        54      0B   A1              01         04  EF 0036F 21$:     EXTZV   #4, #1, 11(VCB), LOCKED                   ; 2088
                                     04         56  E9 00375          BLBC    MOUNTVER, 22$                             ; 2090
                                 53  A1         04  88 00378          BISB2   #4, 83(VCB)                               ; 2091
                                     50    53   A1  9E 0037C 22$:     MOVAB   83(VCB), R0                               ; 2092
        56           60              01         02  EF 00380          EXTZV   #2, #1, (R0), MOUNTVER                    ;
                                     03         52  E9 00385          BLBC    ERASE, 23$                                ; 2094
                                     60         08  88 00388          BISB2   #8, (R0)                                  ; 2095
        52           60              01         03  EF 0038B 23$:     EXTZV   #3, #1, (R0), ERASE                       ; 2096
                                     03         58  E9 00390          BLBC    NOHIGHWATER, 24$                          ; 2098
                                     60         10  88 00393          BISB2   #16, (R0)                                 ; 2099
        58           60              01         04  EF 00396 24$:     EXTZV   #4, #1, (R0), NOHIGHWATER                 ; 2100
                     B1              59         5A  F3 0039B 25$:     AOBLEQ  R10, J, 19$                               ; 2070
                          00000000G  00         00  FB 0039F          CALLS   #0, UNLOCK_IODB                           ; 2103
                                     03         54  E8 003A6 26$:     BLBS    LOCKED, 27$                               ; 2106
                                     05         55  E9 003A9          BLBC    NOWRITE, 28$                              ;
                              0000G  CF         02  8A 003AC 27$:     BICB2   #2, CLEANUP_FLAGS+1                       ; 2107
                                           5C   A7  B6 003B1 28$:     INCW    92(UCB)                                   ; 2115
                                     50         5B  D0 003B4          MOVL    STATUS, R0                                ; 2117
                                                    04 003B7          RET                                               ; 2119
                                              0000 003B8 29$:         .WORD   Save nothing                              ; 1751
                                                7E  D4 003BA          CLRL    -(SP)                                     ;
                                                5E  DD 003BC          PUSHL   SP                                        ;
                                     7E    04   AC  7D 003BE          MOVQ    4(AP), -(SP)                              ;
                              0000V  CF         03  FB 003C2          CALLS   #3, KERNEL_HANDLER                        ;
                                                    04 003C7          RET                                               ;

; Routine Size:  968 bytes,    Routine Base:  $CODE$ + 095B
```

```
1 GLOBAL ROUTINE SET_DATACHECK (UCB, HOME_BLOCK) : NOVALUE =
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine sets the read and write check bits in the indicated UCB
1 !       according to the command switches and the volume characteristics.
1 !
1 !
1 ! CALLING SEQUENCE:
1 !       SET_DATACHECK (ARG1, ARG2)
1 !
1 ! INPUT PARAMETERS:
1 !       ARG2: address of home block or 0
1 !
1 ! IMPLICIT INPUTS:
1 !       MOUNT_OPTIONS: datacheck qualifier bits
1 !
1 ! OUTPUT PARAMETERS:
1 !       ARG1: address of UCB
1 !
1 ! IMPLICIT OUTPUTS:
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 !       NONE
1 !
1 ! SIDE EFFECTS:
1 !       NONE
1 !
1 !--
1
2 BEGIN
2
2 MAP
2       UCB             : REF BBLOCK,   ! UCB arg
2       HOME_BLOCK      : REF BBLOCK;   ! home block arg
2
2 EXTERNAL
2       MOUNT_OPTIONS   : BITVECTOR;    ! parser option flags
2
2 ! The read and write check attributes to be set are simply the inclusive
2 ! OR of the read and write check volume attributes and the command options.
2 !
2
2 BBLOCK [UCB[UCB$L_DEVCHAR], DEV$V_RCK] = .MOUNT_OPTIONS[OPT_READCHECK]
3     OR (IF .HOME_BLOCK NEQ 0
3         THEN .HOME_BLOCK[HM2$V_READCHECK]
3         ELSE 0
2         );
2
2 BBLOCK [UCB[UCB$L_DEVCHAR], DEV$V_WCK] = .MOUNT_OPTIONS[OPT_WRITECHECK]
3     OR (IF .HOME_BLOCK NEQ 0
3         THEN .HOME_BLOCK[HM2$V_WRITCHECK]
3         ELSE 0
2         );
```

```
; 1651          2177  2
; 1652          2178  1 END;                                      ! end of routine SET_DATACHECK



                                                          0004 00000         .ENTRY  SET_DATACHECK, Save R2                             ; 2120
                                      50        04     AC   7D 00002         MOVQ    UCB, R0                                            ; 2166
                                                       51   D5 00006         TSTL    R1                                                 ; 2167
                                                       08   13 00008         BEQL    1$                                                 ;
          51        2A    A1          01               00   EF 0000A         EXTZV   #0, #1, 42(R1), R1                                 ; 2168
                                                       02   11 00010         BRB     2$                                                 ;
                                                       51   D4 00012 1$:     CLRL    R1                                                 ; 2167
          52     0000G    CF          01               03   EF 00014 2$:     EXTZV   #3, #1, MOUNT_OPTIONS+4, R2                        ;
                                      52               51   88 0001B         BISB2   R1, R2                                             ;
    3B    A0              01          06               52   F0 0001E         INSV    R2, #6, #1, 59(R0)                                 ;
                                      51        08     AC   D0 00024         MOVL    HOME_BLOCK, R1                                     ; 2173
                                                       08   13 00028         BEQL    3$                                                 ;
          51        2A    A1          01               01   EF 0002A         EXTZV   #1, #1, 42(R1), R1                                 ; 2174
                                                       02   11 00030         BRB     4$                                                 ;
                                                       51   D4 00032 3$:     CLRL    R1                                                 ; 2173
          52     0000G    CF          01               04   EF 00034 4$:     EXTZV   #4, #1, MOUNT_OPTIONS+4, R2                        ;
                                      52               51   88 0003B         BISB2   R1, R2                                             ;
    3B    A0              01          07               52   F0 0003E         INSV    R2, #7, #1, 59(R0)                                 ;
                                                            04 00044         RET                                                        ; 2178

; Routine Size:  69 bytes,    Routine Base:  $CODE$ + 0D23
```

```
1 ROUTINE KERNEL_HANDLER (SIGNAL, MECHANISM) : NOVALUE =
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine is the condition handler for all of the kernel mode
1 !       code. It undoes any damage done so far and returns the error
1 !       status to the user mode caller.
1 !
1 !
1 ! CALLING SEQUENCE:
1 !       KERNEL_HANDLER (ARG1, ARG2)
1 !
1 ! INPUT PARAMETERS:
1 !       ARG1: address of signal vector
1 !       ARG2: address of mechanism vector
1 !
1 ! IMPLICIT INPUTS:
1 !       global pointers to blocks allocatea
1 !
1 ! OUTPUT PARAMETERS:
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 !       NONE
1 !
1 ! SIDE EFFECTS:
1 !       stack unwound, allocations undone
1 !
1 !--
1
2 BEGIN
2
2 MAP
2       SIGNAL          : REF BBLOCK,   ! signal vector
2       MECHANISM       : REF BBLOCK;   ! mechanism vector
2
2 LOCAL
2       P               : REF BBLOCK,   ! pointer to scan system lists
2       UCB             : REF BBLOCK;   ! UCB being mounted
2
2 EXTERNAL
2       MOUNT_OPTIONS   : BITVECTOR,    ! command parser options
2       CLEANUP_FLAGS   : BITVECTOR,    ! cleanup action flags
2       CHANNEL,                        ! channel assigned to device
2       MAILBOX_CHANNEL,                ! channel number of ACP mailbox
2       REAL_VCB        : REF BBLOCK,   ! address of VCB allocated
2       REAL_VCA        : REF BBLOCK,   ! address of volume cache allocated
2       REAL_FCB        : REF BBLOCK,   ! address of FCB allocated
2       REAL_WCB        : REF BBLOCK,   ! address of window allocated
2       REAL_RVT        : REF BBLOCK,   ! address of disk RVT
2       REAL_AQB        : REF BBLOCK,   ! address of AQB allocated
2       MTL_ENTRY       : REF BBLOCK,   ! address of mounted volume list entry
```

```
2               SMTL_ENTRY      : REF BBLOCK,   ! address of volume set MTL
2               IOC$GL_AQBLIST  : REF BBLOCK ADDRESSING_MODE (ABSOLUTE);
2                                               ! system AQB list
2
2       EXTERNAL ROUTINE
2               GET_CHANNELUCB,                 ! get UCB address of channel
2               LOCK_IODB       : ADDRESSING_MODE (GENERAL), ! interlock system I/O database
2               UNLOCK_IODB     : ADDRESSING_MODE (GENERAL), ! unlock system I/O database
2               DEALLOCATE_MEM;                 ! deallocate system dynamic memory
2
2
2       ! Deallocate whatever control blocks exist to wherever they came from.
2       !
2
2       IF .SIGNAL[CHF$L_SIG_NAME] NEQ SS$_UNWIND
2       THEN
3           BEGIN
3
3           IF .SIGNAL[CHF$L_SIG_ARGS] NEQ 3
3           THEN BUG_CHECK (UNXSIGNAL, FATAL, 'Unexpected signal in MOUNT');
3
3       ! If there is a mailbox in existence, deassign its channel, thereby
3       ! deleting the mailbox.
3       !
3
3           IF .CLEANUP_FLAGS[CLF_DEASSMBX]
3           THEN
3               $DASSGN (CHAN = .MAILBOX_CHANNEL);
3
3       ! Clean up the UCB.
3       !
3
3           UCB = GET_CHANNELUCB (.CHANNEL);
3           LOCK_IODB ();
3           BBLOCK [UCB [UCB$L_DEVCHAR], DEV$V_MNT] = 0;
3           UCB[UCB$L_VCB] = 0;
3           UNLOCK_IODB ();
3
3       ! If we have created an AQB but no ACP, we must remove the AQB from the
3       ! system list.
3       !
3
3           IF .CLEANUP_FLAGS[CLF_DELAQB]
3           THEN
4               BEGIN
4               LOCK_IODB ();
4               P = .IOC$GL_AQBLIST;
4               IF .P EQL .REAL_AQB
4               THEN
4                   IOC$GL_AQBLIST = .REAL_AQB[AQB$L_LINK]
4               ELSE
5                   BEGIN
5                   UNTIL .P[AQB$L_LINK] EQL .REAL_AQB
5                   DO P = .P[AQB$L_LINK];
5                   P[AQB$L_LINK] = .REAL_AQB[AQB$L_LINK];
4                   END;
4               DEALLOCATE_MEM (.REAL_AQB, 0);
```

```
4              UNLOCK_IODB ();
3              END;
3
3    ! If we have hooked up to an RVT, undo it. Note that this must be done under
3    ! interlock since others may be looking at the same RVT at the same time.
3    ! If the RVT is not disappearing entirely, remove knowledge of this volume
3    ! from it by zeroing the UCB entry in its list of UCB's.
3    !
3
3         IF .REAL_RVT NEQ 0
3         THEN
4              BEGIN
4              LOCK_IODB ();
4              REAL_RVT[RVT$W_REFC] = .REAL_RVT[RVT$W_REFC] - 1;
4              IF .REAL_RVT[RVT$W_REFC] EQL 0
4              THEN
4                   DEALLOCATE_MEM (.REAL_RVT, 0)
4              ELSE
4                   VECTOR [REAL_RVT [RVT$L_UCBLST], .REAL_VCB [VCB$W_RVN]-1] = 0;
4
4              UNLOCK_IODB ();
3              END;
3
3         IF .REAL_VCB NEQ 0
3         THEN DEALLOCATE_MEM (.REAL_VCB, 0);
3
3         IF .REAL_VCA NEQ 0
3         THEN DEALLOCATE_MEM (.REAL_VCA, 0);
3
3         IF .REAL_FCB NEQ 0
3         THEN DEALLOCATE_MEM (.REAL_FCB, 0);
3
3         IF .REAL_WCB NEQ 0
3         THEN DEALLOCATE_MEM (.REAL_WCB, 0);
3
3         IF .MTL_ENTRY NEQ 0
3         THEN DEALLOCATE_MEM (.MTL_ENTRY, 1);
3
3         IF .SMTL_ENTRY NEQ 0
3         THEN DEALLOCATE_MEM (.SMTL_ENTRY, 1);
3
3    ! Return the condition code in R0.
3    !
3
3         MECHANISM[CHF$L_MCH_SAVR0] = .SIGNAL[CHF$L_SIG_NAME];
3         $UNWIND ();
3
2         END;
1    END;                                         ! end of routine KERNEL_HANDLER


                                                              .EXTRN  MAILBOX_CHANNEL
                                                              .EXTRN  REAL_RVT, REAL_AQB
                                                              .EXTRN  IOC$GL_AQBLIST, DEALLOCATE_MEM
                                                              .EXTRN  BUG$_UNXSIGNAL, SYS$DASSGN
                                                              .EXTRN  SYS$UNWIND
```

```
                                    007C 00000 KERNEL_HANDLER:
                                               .WORD   Save R2,R3,R4,R5,R6                          ; 2179
             56 00000000G  9F    9E 00002      MOVAB   @#IOC$GL_AQBLIST, R6                         ;
             55 00000000G  00    9E 00009      MOVAB   UNLOCK_IODB, R5                              ;
             54 00000000G  00    9E 00010      MOVAB   LOCK_IODB, R4                                ;
             53     0000G  CF    9E 00017      MOVAB   DEALLOCATE_MEM, R3                           ;
             50        04  AC    D0 0001C      MOVL    SIGNAL, R0                                   ; 2250
   00000920  8F        04  A0    D1 00020      CMPL    4(R0), #2336                                 ;
                           01    12 00028      BNEQ    1$                                           ;
                                 04 0002A      RET                                                  ;
             03            60    D1 0002B 1$:  CMPL    (R0), #3                                     ; 2254
                           04    13 0002E      BEQL    2$                                           ;
                               FEFF 00030      BUGW                                                 ; 2255
                              0000* 00032      .WORD   <BUG$_UNXSIGNAL!4>                           ;
 0B     0000G  CF              03 E1 00034 2$: BBC     #3, CLEANUP_FLAGS, 3$                        ; 2261
                    0000G  CF    DD 0003A      PUSHL   MAILBOX_CHANNEL                              ; 2263
   00000000G  00           01    FB 0003E      CALLS   #1, SYS$DASSGN                               ;
                    0000G  CF    DD 00045 3$:  PUSHL   CHANNEL                                      ; 2268
        0000G  CF          01    FB 00049      CALLS   #1, GET_CHANNELUCB                           ;
             52            50    D0 0004E      MOVL    R0, UCB                                      ;
             64            00    FB 00051      CALLS   #0, LOCK_IODB                                ; 2269
        3A   A2            08    8A 00054      BICB2   #8, 58(UCB)                                  ; 2270
                       34  A2    D4 00058      CLRL    52(UCB)                                      ; 2271
             65            00    FB 0005B      CALLS   #0, UNLOCK_IODB                              ; 2272
 31     0000G  CF          02    E1 0005E      BBC     #2, CLEANUP_FLAGS, 7$                        ; 2278
             64            00    FB 00064      CALLS   #0, LOCK_IODB                                ; 2281
             50            66    D0 00067      MOVL    IOC$GL_AQBLIST, P                            ; 2282
             51     0000G  CF    D0 0006A      MOVL    REAL_AQB, R1                                 ; 2283
             51            50    D1 0006F      CMPL    P, R1                                        ;
                           06    12 00072      BNEQ    4$                                           ;
             66        10  A1    D0 00074      MOVL    16(R1), IOC$GL_AQBLIST                       ; 2285
                           11    11 00078      BRB     6$                                           ;
             51        10  A0    D1 0007A 4$:  CMPL    16(P), R1                                    ; 2288
                           06    13 0007E      BEQL    5$                                           ;
             50        10  A0    D0 00080      MOVL    16(P), P                                     ; 2289
                           F4    11 00084      BRB     4$                                           ;
        10   A0        10  A1    D0 00086 5$:  MOVL    16(R1), 16(P)                                ; 2290
                           7E    D4 0008B 6$:  CLRL    -(SP)                                        ; 2292
                           51    DD 0008D      PUSHL   R1                                           ;
             63            02    FB 0008F      CALLS   #2, DEALLOCATE_MEM                           ;
             65            00    FB 00092      CALLS   #0, UNLOCK_IODB                              ; 2293
                    0000G  CF    D5 00095 7$:  TSTL    REAL_RVT                                     ; 2302
                           26    13 00099      BEQL    10$                                          ;
             64            00    FB 0009B      CALLS   #0, LOCK_IODB                                ; 2305
             52     0000G  CF    D0 0009E      MOVL    REAL_RVT, R2                                 ; 2306
                       04  A2    B7 000A3      DECW    4(R2)                                        ;
                           09    12 000A6      BNEQ    8$                                           ; 2307
                           7E    D4 000A8      CLRL    -(SP)                                        ; 2309
                           52    DD 000AA      PUSHL   R2                                           ;
             63            02    FB 000AC      CALLS   #2, DEALLOCATE_MEM                           ;
                           0D    11 000AF      BRB     9$                                           ;
             50     0000G  CF    D0 000B1 8$:  MOVL    REAL_VCB, R0                                 ; 2311
             50        0E  A0    3C 000B6      MOVZWL  14(R0), R0                                   ;
                       40 A240   D4 000BA      CLRL    64(R2)[R0]                                   ;
             65            00    FB 000BE 9$:  CALLS   #0, UNLOCK_IODB                              ; 2313
             50     0000G  CF    D0 000C1 10$: MOVL    REAL_VCB, R0                                 ; 2316
```

```
                                        07  13 000C6           BEQL     11$                                          ;
                                        7E  D4 000C8           CLRL     -(SP)                                        ; 2317
                                        50  DD 000CA           PUSHL    R0                                           ;
                         63             02  FB 000CC           CALLS    #2, DEALLOCATE_MEM                           ;
                         50      0000G  CF  D0 000CF  11$:     MOVL     REAL_VCA, R0                                 ; 2319
                                        07  13 000D4           BEQL     12$                                          ;
                                        7E  D4 000D6           CLRL     -(SP)                                        ; 2320
                                        50  DD 000D8           PUSHL    R0                                           ;
                         63             02  FB 000DA           CALLS    #2, DEALLOCATE_MEM                           ;
                         50      0000G  CF  D0 000DD  12$:     MOVL     REAL_FCB, R0                                 ; 2322
                                        07  13 000E2           BEQL     13$                                          ;
                                        7E  D4 000E4           CLRL     -(SP)                                        ; 2323
                                        50  DD 000E6           PUSHL    R0                                           ;
                         63             02  FB 000E8           CALLS    #2, DEALLOCATE_MEM                           ;
                         50      0000G  CF  D0 000EB  13$:     MOVL     REAL_WCB, R0                                 ; 2325
                                        07  13 000F0           BEQL     14$                                          ;
                                        7E  D4 000F2           CLRL     -(SP)                                        ; 2326
                                        50  DD 000F4           PUSHL    R0                                           ;
                         63             02  FB 000F6           CALLS    #2, DEALLOCATE_MEM                           ;
                         50      0000G  CF  D0 000F9  14$:     MOVL     MTL_ENTRY, R0                                ; 2328
                                        07  13 000FE           BEQL     15$                                          ;
                                        01  DD 00100           PUSHL    #1                                           ; 2329
                                        50  DD 00102           PUSHL    R0                                           ;
                         63             02  FB 00104           CALLS    #2, DEALLOCATE_MEM                           ;
                         50      0000G  CF  D0 00107  15$:     MOVL     SMTL_ENTRY, R0                               ; 2331
                                        07  13 0010C           BEQL     16$                                          ;
                                        01  DD 0010E           PUSHL    #1                                           ; 2332
                                        50  DD 00110           PUSHL    R0                                           ;
                         63             02  FB 00112           CALLS    #2, DEALLOCATE_MEM                           ;
                         50         04  AC  7D 00115  16$:     MOVQ     SIGNAL, R0                                   ; 2337
                   0C    A1         04  A0  D0 00119           MOVL     4(R0), 12(R1)                                ;
                                        7E  7C 0011E           CLRQ     -(SP)                                        ; 2338
           00000000G     00             02  FB 00120           CALLS    #2, SYS$UNWIND                               ;
                                            04 00127           RET                                                   ; 2341

; Routine Size:  296 bytes,    Routine Base:  $CODE$ + 0D68


; 1817           2342  1
; 1818           2343  1
; 1819           2344  1 END
; 1820           2345  0 ELUDOM



                                                                 .EXTRN  LIB$SIGNAL, LIB$STOP

;                                 PSECT SUMMARY
;
;       Name                    Bytes                       Attributes
;
;  $GLOBAL$                      1164  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $OWN$                           64  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $PLIT$                          18  NOVEC,NOWRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $CODE$                        3728  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
```

```
                                                                          I 3
MOUDK2                                                                  16-Sep-1984 01:19:59    VAX-11 Bliss-32 V4.0-742                  Page  53
V04-002                                                                 14-Sep-1984 12:45:26    DISK$VMSMASTER:[MOUNT.SRC]MOUDK2.B32;4      (7)


;                               Library Statistics
;
;                                                   -------- Symbols --------        Pages        Processing
;       File                                        Total    Loaded   Percent        Mapped       Time
;
;  _$255$DUA28:[SYSLIB]LIB.L32;1                    18619       202         1        1000           00:01.9




;                                          COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:MOUDK2/OBJ=OBJ$:MOUDK2 MSRC$:MOUDK2/UPDATE=(ENH$:MOUDK2)

; Size:           3728 code + 1246 data bytes
; Run Time:          01:10.0
; Elapsed Time:      02:19.2
; Lines/CPU Min:      2010
; Lexemes/CPU-Min: 19769
; Memory Used:   546 pages
; Compilation Complete
```

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MO
Sy

$C
$C
$C
$C
$C
$C
$D
$D
$D
BU
EA
EC
EC
EC
EI
EN
EX
EX
EX
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KC
KC
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KE
KE
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KN
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SS
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PS
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0244 AH-BT13A-SE
VAX/VMS V4.0

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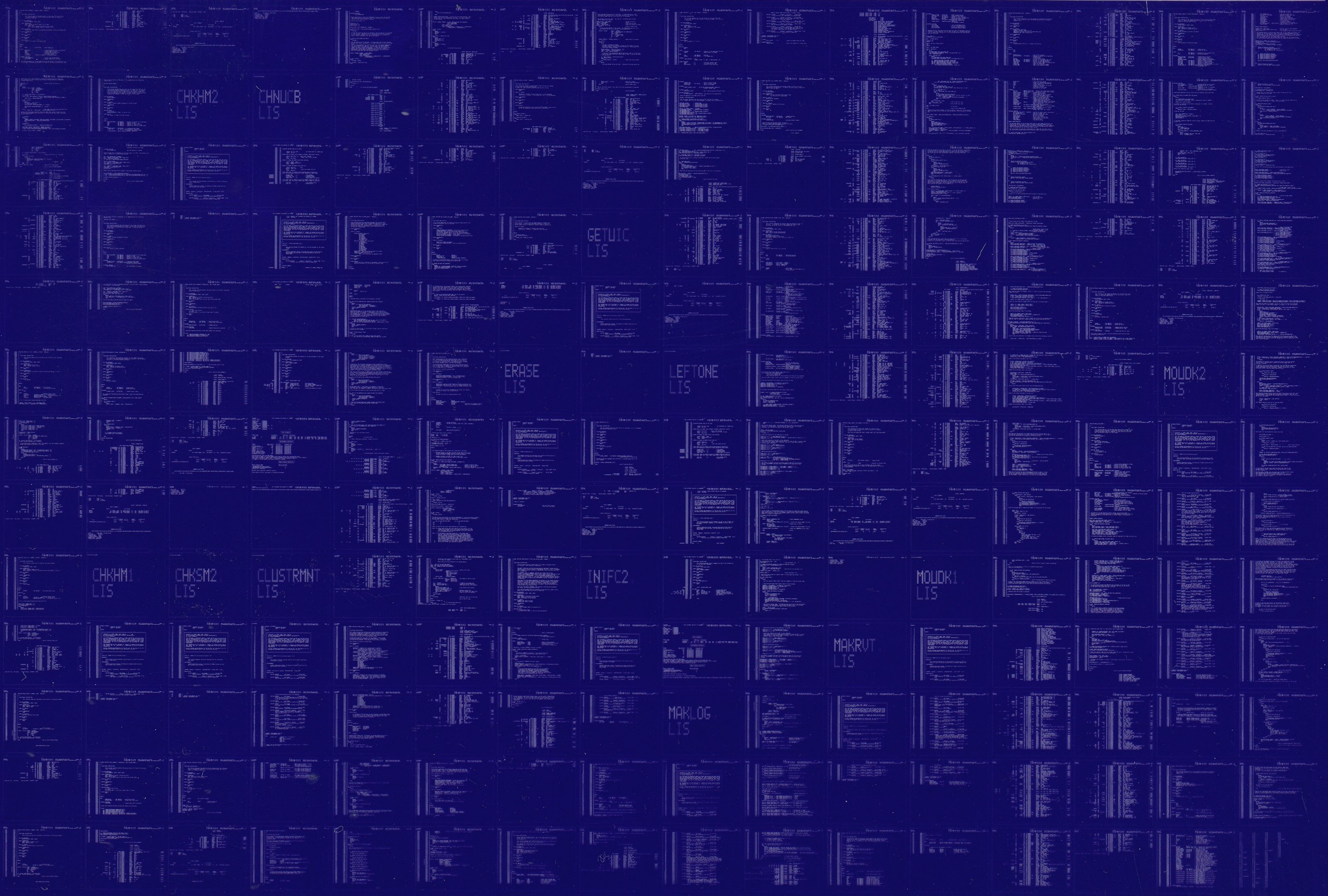

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